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ROYAL MEEKER, Commissioner

# MONTHLY LABOR REVIEW

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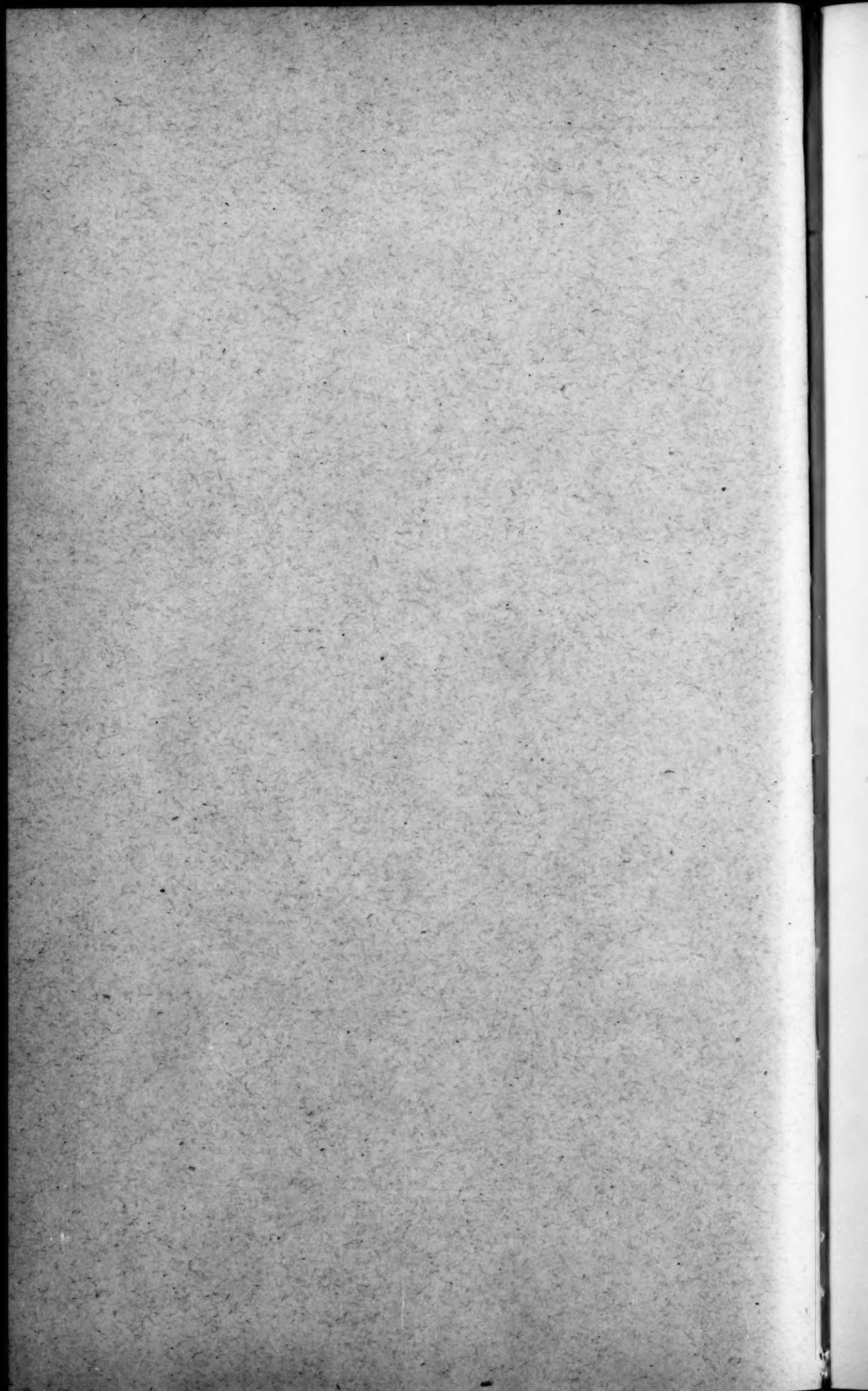


March, 1920

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# MONTHLY LABOR REVIEW

VOL. X—NO. 3

WASHINGTON

MARCH, 1920

## Prevention of Accidents by the Statistical Method.<sup>1</sup>

By ROYAL MEEKER, UNITED STATES COMMISSIONER OF LABOR STATISTICS

**S**TATISTICS are commonly thought of as exceedingly dry and rather useless arrays of figures. No popular misconception is more at variance with the truth than this misconception of the nature and purpose of statistics. In the field of accident prevention safety men were unable to make much impression on the frequency of accident occurrence until accident statistics showed the causes responsible for the greater numbers of accidents.

The crude statistics of accident occurrence, which counted all accidents as equally important, whether resulting in death, the loss of an arm, or a cut on the finger, were useful in assisting the safety men to determine the causes and reduce the number of accidents. These crude statistics of accident occurrence or accident frequency were wholly inadequate for attacking the causes of the fatal and more severe accidents. The analyses by the U. S. Bureau of Labor Statistics of accidents by length of disability or severity of injury had some very important results. It was found that some industries and occupations with high accident frequency rates had low severity rates. On the other hand, industries and occupations with low frequency rates had high severity rates. It was further discovered that the fatal and more severe accidents were largely due to faulty layout of plants and faulty construction of equipment. For instance, blast furnaces formerly contributed very largely to the fatal accidents in the manufacture of iron and steel. The heavy toll of deaths due to blast-furnace accidents led to improvements in construction by which "blow-outs" with their accompanying fatalities have been almost entirely eliminated. The substitution of mechanical charging of blast furnaces for the old hand-charging method has practically eliminated fatal "gassing" among the men who were obliged to work on top of the old type of blast furnaces. These improvements in the construction of blast furnaces were brought about as the result of the analyses of accident statistics and the calling of the attention of those responsible for the direction of industry to the causes of the more severe accidents.

<sup>1</sup> This article was published in the National Safety News, bulletin of the National Safety Council, Chicago, Jan. 26, 1920.

It is impossible to differentiate accurately responsibility for accident occurrence. There must be the fullest cooperation between management and men if accidents are to be reduced to the irreducible minimum. Workers must be educated to be careful in doing their work. The management must be educated to be careful in laying out and building the plant and equipment to be used by the workers. The analyses of accident statistics made by the U. S. Bureau of Labor Statistics indicate that the education of the workmen may and does result in reducing very greatly the number of accidents, especially the minor ones. These studies indicate with equal precision that we must depend upon the education of employers to bring about any marked decrease in the severity of accidents. Workers can spend all their time being careful in a badly constructed or badly equipped plant and yet be killed or seriously injured by reason of unsafe railroad yards or badly designed or badly built machines and other equipment.

#### Need for Accurate Accident Statistics.

**T**HE safety movement has gained tremendous impetus. The workers are being educated in the gospel of being careful not merely for their own safety but for the safety of their fellow workers. Employers are also being educated to provide safe and sane workshops and equipment for their workers to use. The great need of the hour is more accurate accident statistics and more intelligent tabulation and analysis of such statistics. Employers have gone about as far as they can go in directing the safety campaign until they can be given more information about the causes and severity of accidents in industries and occupations that have not yet been included in detailed accident studies.

The most important contribution that could be made to the further development of the safety movement would be the adoption in all the States of the Union of uniform accident reporting blanks. These blanks should call for the essential facts which safety men and factory inspectors must know to determine the causes and results of accidents. These uniform accident reports should be tabulated on the tabular forms adopted and according to the rules laid down by the Committee on Statistics and Compensation Insurance Cost of the International Association of Industrial Accident Boards and Commissions. Information regarding accident occurrence and results collected in a uniform way from all industries and plants throughout the country and tabulated in a uniform manner would be most valuable to employers, employees, and factory inspection departments. The safety movement could then be intelligently directed toward the reduction or elimination of the more severe accidents in the industries and occupations with the higher severity rates.

The campaign for the reduction of severe accidents need not at all diminish the vigor of the campaign for the reduction of minor injuries. It is important to reduce the occurrence of all accidents—minor and major—to the irreducible minimum, but the point that needs emphasis just now is the fact that it is more important to prevent the loss of the legs, the arms, and the lives of workers than to prevent the loss of the finger nails and cuticle of workers.

The men who are engaged in analyzing accident statistics by tabulating them by causes and severity of injuries are like the general staff of the army. They map out the objectives of the campaign and furnish the information necessary to attain these objectives most speedily and economically. The Safety Movement Army has now caught up with the general staff. It has attained all of the objectives that have been clearly mapped out by the statistical strategists. The imperative need of the Safety Movement Army now is for better and more detailed maps of the enemy's country and the clear indication of the objectives for the next onward movement. These maps can only be supplied by the accident statisticians when they obtain more complete and accurate accident statistics. Let the watchword be the prevention of every preventable accident. To attain this goal, accurate, complete, and comprehensible accident statistics are indispensable. Better statistics make for better safety work.



# Duration of Wage Earners' Disabilities.

By BORIS EMMET, Ph. D.

A BRIEF report on the extent of disabilities among wage earners was published in the November, 1919, issue of the REVIEW.<sup>1</sup> The article presented herewith represents a supplementary study undertaken for the purpose of revealing the duration of disability as influenced by age and occupation. The figures are for the years 1912 to 1916, inclusive, and represent the experience of the Workmen's Sick and Death Benefit Fund of the United States of America. Disabilities resulting from accident as well as those caused by sickness are included. Members of Class III, who are entitled to receive death benefits only, are not included.

The following table shows the duration of disabilities among wage earners by presenting the proportion of cases of each specified duration and the number and per cent of disability days in each duration period.

TABLE 1.—NUMBER AND PER CENT OF CASES AND OF DAYS OF DISABILITY IN EACH SPECIFIED DURATION PERIOD.

Duration of disability.	Cases of disability.		Days of disability.	
	Number.	Per cent.	Number.	Per cent.
1 day.....	270	0.6	267	( <sup>1</sup> )
2 days.....	1,013	2.3	1,996	0.2
3 days.....	1,586	3.7	4,707	.4
4 days.....	1,844	4.2	7,302	.6
5 days.....	2,088	4.8	10,344	.9
6 days.....	1,502	3.5	8,910	.7
Total, under 1 week...	8,303	19.1	33,526	2.8
1 week and under 2 weeks...	12,071	27.8	109,972	9.0
2 and under 4 weeks.....	10,468	24.1	195,981	16.1
4 and under 12 weeks.....	9,418	21.6	423,480	34.8
12 and under 25 weeks.....	2,269	5.2	244,316	20.1
25 weeks and over.....	956	2.2	208,841	17.2
Grand total.....	43,485	100.0	1,216,116	100.0

<sup>1</sup> Less than one-tenth of 1 per cent.

<sup>2</sup> This total differs somewhat from the total days of disability (1,223,324) shown in the article entitled "Disability among wage earners," which appeared in the November, 1919, issue of the MONTHLY LABOR REVIEW, Table 5, p. 26. The difference is due to the method of computation. The larger figure of the earlier report represents the actual number of disability days. The smaller figure given here was arrived at by multiplying the number in each group by the mean of the lower and higher number of days included in the group.

Table 1 shows that slightly over 19 per cent of all the cases and about 3 per cent of the total days of disability were due to disabilities of less than one week. More than 46 per cent of the cases and

<sup>1</sup> "Disability among wage earners," MONTHLY LABOR REVIEW, November, 1919, pp. 20-39.

about 12 per cent of the total days of disability were caused by disabilities extending less than two weeks.

The information given in Table 1 is of interest to students of State and fraternal social insurance as well as to organizations having, or proposing to have, employees' sick benefit societies. One of the two most pressing questions in all such instances is that of the waiting period. A very short waiting period, or no waiting period at all, has a definite tendency to encourage malingering. Again, too prolonged a waiting period may mean that a considerable number of disabled persons, actually in need, will be deprived of the sorely needed financial assistance. Certain of the proposed State social insurance plans provide for a waiting period of three days. The disability experience presented in Table 1 shows that a waiting period of three days would eliminate from benefit payment less than 7 per cent of the disability cases. Such an elimination would be most desirable from the point of view of guarding against malingering and would, at the same time, cause very little hardship because the proportion of disability days covered by cases of a duration of three days or less is insignificantly small, slightly over one-half of 1 per cent of all disability days.

The length of the benefit period is the second important consideration in sickness insurance. Long benefit periods mean, of course, a great financial burden. The usual length of benefit periods in many of the existing voluntary sickness insurance societies as well as in trade-union funds is about three months.<sup>1</sup> Table 1 shows that 7.4 per cent of all the disability cases last 12 weeks and over. These cases represent 37.3 per cent of all the disability days.

#### The Age Factor in Disability Durations.

TABLE 2 shows for all occupations the number and per cent of members disabled each classified number of days, by age groups.

The detailed facts presented in Table 2 are, for purposes of clearer analysis, summarized in Table 3, in 5-year age groups, and in Table 4, in 10-year age groups.

<sup>1</sup> See article on "Operation of establishment and trade-union disability funds," in MONTHLY REVIEW of the United States Bureau of Labor Statistics, August, 1917, pp. 22-36.

TABLE 2.—NUMBER AND PER CENT (ALL OCCUPATIONS) DISABLED EACH SPECIFIED PERIOD, BY 5-YEAR AGE GROUPS.  
*Number disabled.*

Age group.	1 day.	2 days.	3 days.	4 days.	5 days.	6 days.	7 days.	8 days.	9 days.	10 days.	11 days.	12 days.	13 days.	14 days.	15 days.	16 days.	17 days.	18 days.	19 days.	20 days.	21 days.	22 days.	23 days.	24 days.	25 days.
Under 20.....	1	6	9	10	14	.....	11	8	6	3	5	6	.....	8	4	2	1	2	.....	.....	4	1	.....	.....	2
20 to 24.....	17	71	110	117	148	54	189	75	82	69	60	57	20	67	39	27	27	27	35	12	33	18	12	12	20
25 to 29.....	35	136	198	212	254	113	391	162	164	115	121	117	57	158	60	73	69	53	41	32	84	33	41	36	32
30 to 34.....	51	169	251	266	312	197	516	213	200	152	148	157	81	224	85	74	106	82	86	43	121	61	44	50	42
35 to 39.....	45	167	254	325	338	222	618	250	232	225	195	187	142	262	129	145	107	101	101	71	139	55	65	68	60
40 to 44.....	40	185	254	313	358	237	648	252	280	222	206	251	149	314	152	124	123	122	135	89	191	80	86	80	69
45 to 49.....	30	132	215	257	279	269	649	238	229	227	209	208	174	335	138	165	150	149	110	112	194	93	100	63	81
50 to 54.....	26	75	141	186	206	225	503	169	181	184	157	166	173	313	136	111	112	101	102	102	170	71	75	88	68
55 to 59.....	16	48	86	109	135	128	316	135	141	114	90	96	112	218	88	79	63	66	68	58	131	53	51	50	59
60 to 64.....	6	22	31	42	33	46	138	62	41	47	44	61	48	73	21	31	36	27	41	19	57	17	26	16	16
65 to 69.....	3	2	9	6	10	7	35	12	14	10	10	12	13	27	9	8	4	6	8	2	20	7	7	7	8
70 and over.....	.....	.....	.....	.....	.....	.....	2	3	.....	2	2	.....	2	4	.....	1	1	3	2	1	.....	1	.....	1	.....
Total disabled members.....	270	1,013	1,586	1,844	2,088	1,502	4,016	1,579	1,570	1,370	1,247	1,318	971	2,003	861	840	811	745	729	546	1,144	490	507	473	455
Total disability days.....	267	1,996	4,707	7,302	10,344	8,910	27,961	12,528	14,018	13,570	13,613	15,732	12,550	27,839	12,762	13,328	13,672	13,248	13,667	10,760	23,852	10,604	11,515	11,148	11,081

*Per cent disabled.*

Age group.	1 day.	2 days.	3 days.	4 days.	5 days.	6 days.	7 days.	8 days.	9 days.	10 days.	11 days.	12 days.	13 days.	14 days.	15 days.	16 days.	17 days.	18 days.	19 days.	20 days.	21 days.	22 days.	23 days.	24 days.	25 days.
Under 20.....	0.79	4.72	7.09	7.87	11.02	.....	8.66	6.30	4.72	2.36	3.94	4.72	.....	6.30	3.15	1.57	0.79	1.57	.....	.....	3.15	0.79	.....	.....	1.57
20 to 24.....	.96	3.99	6.19	6.38	8.27	3.04	10.63	4.22	4.61	3.88	3.37	3.21	1.12	3.77	2.19	1.52	1.52	1.52	1.97	.67	1.86	1.01	0.67	1.57	1.12
25 to 29.....	.98	3.81	5.48	5.93	7.11	3.16	10.94	4.53	4.59	3.22	3.39	3.27	1.59	4.42	1.68	2.04	1.93	1.48	1.15	.90	2.35	.92	1.15	1.01	.90
30 to 34.....	1.05	3.48	5.78	5.47	6.42	4.05	10.61	4.38	4.11	3.13	3.04	3.23	1.67	4.61	1.75	1.52	2.18	1.69	1.77	.88	2.49	1.25	.90	1.03	.86
35 to 39.....	.73	2.69	4.10	5.24	5.45	3.58	9.97	4.03	3.74	3.63	3.15	3.02	2.29	4.23	2.08	2.34	1.92	1.73	1.63	.89	2.24	1.89	1.05	1.10	.97
40 to 44.....	.56	2.60	3.58	4.41	5.04	3.34	9.12	3.55	3.94	3.13	2.90	3.53	2.10	4.42	2.14	1.75	1.73	1.72	1.90	1.25	2.69	1.13	1.21	1.13	.97
45 to 49.....	.42	1.85	3.01	3.59	3.90	3.76	9.08	3.33	3.20	3.17	2.92	2.91	2.43	4.69	1.93	2.31	2.10	2.08	1.54	1.57	2.71	1.30	1.40	.88	1.13
50 to 54.....	.43	1.24	2.33	3.08	3.41	3.72	8.32	2.80	2.99	3.04	2.60	2.75	2.86	5.18	2.25	1.84	1.85	1.67	1.69	1.69	2.81	1.17	1.24	1.46	1.13
55 to 59.....	.38	1.15	2.06	2.62	3.24	3.07	7.58	3.24	3.38	2.74	2.16	2.30	2.69	5.23	2.11	1.90	1.51	1.58	1.63	1.39	3.14	1.27	1.22	1.20	1.42
60 to 64.....	.32	1.18	1.67	2.26	1.78	2.47	7.42	3.34	3.21	2.53	2.37	3.28	2.58	3.93	1.13	1.67	1.94	1.45	2.21	1.02	3.07	.91	1.40	.86	.86
65 to 69.....	.54	.36	1.62	1.08	1.80	1.26	6.28	2.15	2.51	1.80	1.80	2.15	2.33	4.85	1.62	1.44	.72	1.08	1.44	1.26	3.59	1.26	1.26	1.26	1.44
70 and over.....	.....	.....	.....	.....	.....	.....	3.08	4.62	.....	3.08	3.08	.....	3.08	6.15	.....	1.54	1.54	4.62	3.02	1.54	.....	1.54	.....	1.54	.....
Total disabled members.....	.62	2.33	3.65	4.24	4.80	3.45	9.24	3.63	3.61	3.15	2.87	3.03	2.23	4.61	1.98	1.93	1.86	1.71	1.68	1.26	2.63	1.13	1.17	1.09	1.05
Per cent of all disability days.....	(1)	.2	.4	.6	.9	.7	2.3	1.0	1.2	1.1	1.1	1.3	1.0	2.3	1.0	1.1	1.1	1.1	1.1	.9	2.0	.9	.9	.9	.9

<sup>1</sup> Less than one-tenth of 1 per cent.



# DURATION OF WAGE EARNERS' DISABILITIES.

Number disabled.

Age group.	26 days	27 days	4 and under 5 weeks	5 and under 6 weeks	6 and under 7 weeks	7 and under 8 weeks	8 and under 9 weeks	9 and under 10 weeks	10 and under 11 weeks	11 and under 12 weeks	12 and under 13 weeks	13 and under 14 weeks	14 and under 15 weeks	15 and under 16 weeks	16 and under 17 weeks	17 and under 18 weeks	18 and under 19 weeks	19 and under 20 weeks	20 and under 25 weeks	25 and under 30 weeks	30 and under 35 weeks	35 and under 40 weeks	40 and under 45 weeks	45 to 52 weeks	Total.
Under 20.....	2	17	9	3	2	2	3	1	1	13	9	1	5	3	4	3	3	1	5	1	1	2	3	3	127
20 to 24.....	30	22	163	130	82	72	58	38	23	19	13	12	19	8	6	10	7	4	21	19	12	11	5	5	1,778
25 to 29.....	47	27	245	167	125	90	55	53	39	29	25	20	17	15	9	15	11	8	38	24	12	13	6	11	3,574
30 to 34.....	63	51	348	274	145	141	115	80	51	43	39	34	35	32	28	13	16	17	42	32	26	20	8	23	4,862
35 to 39.....	82	76	425	296	226	151	124	104	88	71	53	43	36	45	28	29	18	15	72	59	30	25	17	31	6,197
40 to 44.....	80	76	448	338	254	195	148	106	83	84	66	47	50	43	27	23	30	18	74	47	34	27	22	24	7,104
45 to 49.....	68	74	400	279	234	176	136	127	99	73	67	49	49	35	40	29	13	30	90	47	20	23	18	21	6,044
50 to 54.....	44	41	267	230	163	135	99	87	64	60	54	36	31	35	40	21	19	21	75	54	27	22	11	22	4,168
55 to 59.....	20	23	127	94	78	54	50	64	35	29	17	19	29	20	15	13	13	13	45	27	23	21	8	21	1,859
60 to 64.....	3	7	45	33	23	28	22	19	1	10	11	12	11	1	6	5	3	6	13	6	1	2	5	6	1,557
65 to 69.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	65
70 and over.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total disabled members.....	456	408	2,576	1,910	1,380	1,081	835	685	508	433	359	283	283	237	203	161	133	134	476	320	197	167	104	168	43,485
Total disability days.....	11,661	10,844	78,438	70,756	60,397	54,418	47,470	43,956	35,085	32,960	29,324	24,722	26,669	24,138	22,028	17,873	15,613	16,116	67,833	53,856	38,029	38,252	26,587	52,117	1,216,116

[601]

Per cent disabled.

Age group.	26 days	27 days	4 and under 5 weeks	5 and under 6 weeks	6 and under 7 weeks	7 and under 8 weeks	8 and under 9 weeks	9 and under 10 weeks	10 and under 11 weeks	11 and under 12 weeks	12 and under 13 weeks	13 and under 14 weeks	14 and under 15 weeks	15 and under 16 weeks	16 and under 17 weeks	17 and under 18 weeks	18 and under 19 weeks	19 and under 20 weeks	20 and under 25 weeks	25 and under 30 weeks	30 and under 35 weeks	35 and under 40 weeks	40 and under 45 weeks	45 to 52 weeks	Total.
Under 20.....	1.57	0.62	7.09	2.36	1.57	1.57	2.36	0.96	0.79	0.73	0.51	0.39	0.28	0.17	0.22	0.17	0.17	0.06	0.28	0.79	.....	0.11	0.17	0.17	100.00
20 to 24.....	90	62	5.34	3.54	2.47	1.86	1.62	1.06	0.62	0.53	0.36	0.34	0.53	0.22	0.17	0.28	0.20	0.11	0.59	0.53	0.34	0.31	0.14	0.14	100.00
25 to 29.....	84	62	4.56	3.64	2.29	2.01	1.62	1.06	0.64	0.53	0.36	0.34	0.53	0.22	0.17	0.28	0.20	0.11	0.59	0.53	0.34	0.31	0.14	0.14	100.00
30 to 34.....	97	56	5.04	3.43	2.57	1.85	1.13	1.09	0.80	0.60	0.51	0.41	0.35	0.31	0.19	0.31	0.23	0.16	0.78	0.49	0.25	0.27	0.12	0.23	100.00
35 to 39.....	1.02	0.82	5.62	4.42	2.34	2.28	1.86	1.29	0.82	0.69	0.63	0.55	0.56	0.52	0.45	0.21	0.26	0.27	0.68	0.52	0.42	0.32	0.13	0.37	100.00
40 to 44.....	1.15	1.07	5.98	4.17	3.18	2.13	1.75	1.46	1.24	1.00	0.75	0.61	0.51	0.63	0.39	0.41	0.25	0.21	1.01	0.83	0.42	0.35	0.24	0.44	100.00
45 to 49.....	1.12	1.06	6.27	4.73	3.55	2.73	2.07	1.48	1.16	1.17	0.92	0.66	0.70	0.60	0.38	0.32	0.42	0.25	1.03	0.66	0.48	0.38	0.31	0.34	100.00
50 to 54.....	1.13	1.22	6.62	4.62	3.87	2.91	2.25	2.10	1.64	1.21	1.11	0.81	0.81	0.58	0.66	0.48	0.22	0.50	1.49	0.78	0.43	0.38	0.30	0.35	100.00
55 to 59.....	1.06	0.98	6.41	5.52	3.91	3.24	2.38	2.09	1.54	1.44	1.30	0.86	0.74	0.84	0.96	0.60	0.46	0.50	1.80	1.30	0.65	0.53	0.26	0.53	100.00
60 to 64.....	1.08	1.24	6.83	5.06	4.20	2.90	2.69	3.44	1.88	1.56	0.91	1.02	1.56	1.08	0.81	0.70	0.70	1.08	2.42	1.45	1.24	1.13	0.43	1.13	100.00
65 to 69.....	0.54	1.26	8.08	5.92	4.13	5.03	3.41	3.41	2.33	1.80	1.97	2.15	1.97	1.08	1.08	0.90	0.54	1.08	2.33	1.08	1.08	0.36	0.90	1.08	100.00
70 and over.....	.....	.....	6.15	4.62	6.15	6.15	1.54	.....	1.54	3.08	7.69	4.62	1.54	.....	.....	.....	.....	1.54	1.54	.....	1.54	1.54	1.54	1.54	100.00
Total disabled members.....	1.05	.94	5.92	4.39	3.17	2.49	1.92	1.60	1.17	1.00	.83	.65	.65	.55	.47	.37	.31	.31	1.09	.74	.45	.38	.24	.39	100.00
Per cent of all disability days.....	1.0	.9	6.4	5.8	5.0	4.5	3.9	3.6	2.9	2.7	2.4	2.0	2.2	2.0	1.8	1.5	1.3	1.3	5.6	4.4	3.1	3.1	2.2	4.3	100.00

TABLE 3.—NUMBER AND PER CENT (ALL OCCUPATIONS) DISABLED EACH CLASSIFIED NUMBER OF WEEKS, BY 5-YEAR AGE GROUPS.

Age group.	Number disabled.							Per cent disabled.						
	Under 1 week	1 week and under 2 weeks	2 and under 4 weeks	4 and under 12 weeks	12 and under 25 weeks	25 weeks and over	Total.	Under 1 week	1 week and under 2 weeks	2 and under 4 weeks	4 and under 12 weeks	12 and under 25 weeks	25 weeks and over	Total.
25 to 29....	946	1,127	764	585	100	52	3,574	26.5	31.5	21.4	16.4	2.8	1.4	100
30 to 34....	1,276	1,467	1,092	803	158	66	4,862	26.2	30.2	22.5	16.5	3.2	1.4	100
35 to 39....	1,351	1,849	1,435	1,197	256	109	6,197	21.8	29.8	23.2	19.3	4.1	1.8	100
40 to 44....	1,387	2,008	1,723	1,485	339	162	7,104	19.5	28.3	24.2	20.9	4.8	2.3	100
45 to 49....	1,182	1,934	1,846	1,656	378	154	7,150	16.5	27.0	25.8	23.2	5.3	2.2	100
50 to 54....	859	1,533	1,591	1,524	402	135	6,044	14.2	25.4	26.3	25.2	6.7	2.2	100
55 to 59....	522	1,004	1,069	1,105	332	136	4,168	12.5	24.1	25.6	26.5	8.0	3.3	100
Total...	7,523	10,922	9,520	8,355	1,965	814	39,099	19.2	27.9	24.3	21.4	5.1	2.1	100

TABLE 4.—NUMBER AND PER CENT (ALL OCCUPATIONS) DISABLED EACH CLASSIFIED NUMBER OF WEEKS BY 10-YEAR AGE GROUPS.

Age group.	Number disabled.							Per cent disabled.						
	Under 1 week	1 week and under 2 weeks	2 and under 4 weeks	4 and under 12 weeks	12 and under 25 weeks	25 weeks and over	Total.	Under 1 week	1 week and under 2 weeks	2 and under 4 weeks	4 and under 12 weeks	12 and under 25 weeks	25 weeks and over	Total.
Under 20..	40	39	26	20	1	1	127	31.49	30.71	20.47	15.75	0.79	0.79	100
20 to 29....	1,463	1,679	1,121	885	140	64	5,352	27.33	31.37	20.94	16.54	2.62	1.20	100
30 to 39....	2,627	3,316	2,527	2,000	414	175	11,059	23.75	29.99	22.85	18.09	3.74	1.58	100
40 to 49....	2,569	3,942	3,569	3,141	717	316	14,254	18.02	27.66	25.04	22.03	5.03	2.22	100
50 to 59....	1,381	2,537	2,660	2,629	734	271	10,212	13.53	24.84	26.05	25.74	7.19	2.65	100
60 to 69....	217	547	551	724	252	125	2,416	8.98	22.64	22.81	29.97	10.43	5.17	100
70 and over	6	11	14	19	11	4	65	9.23	16.92	21.54	29.23	16.92	6.16	100
Total <sup>1</sup> ..	8,303	12,071	10,468	9,418	2,269	956	43,485	19.09	27.76	24.07	21.66	5.22	2.20	100

<sup>1</sup> The totals given in this table include all ages and therefore do not agree with the totals in Table 3.

The influence of the age factor may easily be discerned by a comparison of the figures shown in the columns headed "under 1 week," and "25 weeks and over," of Table 3. In the first instance the proportion of cases lasting under one week was 26.5 per cent in age group 25 to 29, and less than one-half of that—12.5 per cent—in the age group 55 to 59. An entirely opposite, but just as definite, tendency is found in the column showing per cent of disabilities lasting 25 weeks and over. Here the age group 25 to 29 shows 1.4 per cent compared with 3.3 per cent—or more than 100 per cent greater—for the age group 55 to 59. The combination into 10-year age groups, as given in Table 4 shows the same tendency, but in a much more striking manner. Comparing the percentage figures of the columns corresponding to those mentioned in Table 3, it is seen that the proportion of cases lasting under one week is about two-thirds less in age group 60 to 69 than in age group 20 to 29, but that the proportion of cases lasting 25 weeks and over is over three hundred per cent greater in group 60 to 69 than in group 20 to 29.

## The Occupational Factor in Disability Durations.

AS STATED in the earlier report on disability among wage earners,<sup>1</sup> the two principal factors determining the extent of disability are age and occupation. A similar statement may be made with reference to the factors determining disability durations.

Although the age factor is most important, the effect of the occupational factor should not be underestimated. Table 5 shows occupational disability durations by giving for all ages the number and per cent disabled each classified number of weeks.

TABLE 5.—NUMBER AND PER CENT (ALL AGES) DISABLED EACH CLASSIFIED NUMBER OF WEEKS, IN EACH OCCUPATION GROUP.

Occupation.	Number disabled.						Per cent disabled.							
	Under 1 wk.	1 wk. and under 2 wks.	2 wks. and under 4 wks.	4 wks. and under 12 wks.	12 wks. and under 25 wks.	25 wks. and over.	Total.	Under 1 wk.	1 wk. and under 2 wks.	2 wks. and under 4 wks.	4 wks. and under 12 wks.	12 wks. and under 25 wks.	25 wks. and over.	Total.
Auto, carriage, and wagon manufacturing.....	40	46	43	38	9	4	180	22.2	25.5	23.9	21.1	5.0	2.2	100
Barbers.....	57	60	36	54	14	7	228	25.0	26.3	15.8	23.7	6.1	3.1	100
Bartenders.....	66	96	94	101	32	15	404	16.3	23.8	23.3	25.0	7.9	3.7	100
Blacksmiths.....	81	149	132	119	25	12	518	15.6	28.8	25.5	23.0	4.8	2.3	100
Bricklayers.....	96	138	144	117	25	19	539	17.8	25.6	26.7	21.7	4.6	3.5	100
Carpenters.....	477	744	696	671	156	76	2,820	16.9	26.4	24.7	23.8	5.5	2.7	100
Clay products manufacturing.....	23	41	36	34	8	2	144	16.0	28.5	25.0	23.6	5.6	1.3	100
Clothing manufacturing.....	173	240	211	193	49	17	883	19.6	27.2	23.9	21.9	5.5	1.9	100
Cooks and waiters.....	85	134	113	112	25	15	484	17.6	27.7	23.3	23.1	5.2	3.1	100
Drivers.....	344	497	507	476	111	42	1,977	17.4	25.1	25.6	24.1	5.6	2.1	100
Dyers.....	29	49	31	41	9	5	164	17.7	29.9	18.9	25.0	5.5	3.0	100
Electrical workers.....	46	76	41	43	8	1	215	21.4	35.3	19.1	20.0	3.7	.5	100
Engineers and firemen.....	147	224	182	151	49	13	766	19.2	29.2	23.8	19.7	6.4	1.7	100
Farmers, gardeners, and florists.....	39	81	62	46	11	4	243	16.0	33.3	25.5	18.9	4.5	1.6	100
Food employees.....	282	403	400	323	93	36	1,537	18.3	26.2	26.0	21.0	6.1	2.3	100
Freight handlers.....	21	49	58	50	16	5	199	10.6	24.6	29.1	25.1	8.0	2.5	100
Glassworkers.....	41	70	49	45	13	4	222	18.5	31.5	22.1	20.3	5.9	1.8	100
Jewelers.....	44	40	37	35	5	5	166	26.5	24.1	22.3	21.1	3.0	3.0	100
Laborers, not specified.....	1,017	1,389	1,180	988	215	77	4,866	20.9	28.5	24.2	20.3	4.4	1.6	100
Leather workers.....	205	245	212	201	45	31	939	21.8	26.1	22.6	21.4	4.8	3.3	100
Liquor manufacturing.....	718	1,114	1,007	926	192	81	4,038	17.8	27.6	24.9	22.9	.8	2.0	100
Machinists.....	789	1,007	810	704	188	68	3,566	22.1	28.2	22.7	19.7	5.3	1.9	100
Miners.....	314	627	592	521	119	47	2,220	14.1	28.2	26.7	23.5	5.4	2.1	100
Molders.....	151	207	193	155	26	5	737	20.5	28.1	26.2	21.0	3.5	.7	100
Other building construction.....	26	38	22	24	7	5	122	21.3	31.1	18.0	19.7	5.7	4.1	100
Other manufacturing.....	191	246	194	192	45	8	876	21.8	28.1	22.1	21.9	5.1	.9	100
Other metal workers.....	351	451	388	324	78	14	1,606	21.9	28.1	24.1	20.2	4.9	.8	100
Painters.....	168	234	222	218	54	30	926	18.1	25.3	24.0	23.5	5.8	3.2	100
Plasterers.....	28	23	23	23	7	5	109	25.7	21.1	21.1	21.1	6.4	4.6	100
Plumbers.....	90	94	66	59	11	6	326	27.6	28.8	20.2	18.1	3.4	1.8	100
Printers and engravers.....	133	141	119	130	41	27	591	22.5	23.9	20.1	22.0	6.9	4.6	100
Professional.....	26	58	27	25	8	2	146	17.8	39.7	18.5	17.1	5.5	1.4	100
Railway employees.....	44	43	41	36	8	5	177	24.9	24.3	23.2	20.3	4.5	2.8	100
Sheet-metal workers.....	107	158	111	100	29	9	514	20.8	30.7	21.6	19.5	5.6	1.8	100
Slaughtering and meat packing employees.....	248	351	334	325	62	31	1,351	18.4	26.0	24.7	24.1	4.6	2.3	100
Stone and granite workers.....	44	81	67	54	16	11	273	16.1	29.7	24.5	19.8	5.9	4.0	100
Tanners.....	77	111	86	61	26	9	370	20.8	30.0	23.2	16.5	7.0	2.4	100
Textile manufacturing employees.....	285	371	319	274	74	20	1,343	21.2	27.6	23.8	20.4	5.5	1.5	100
Tobacco and cigars.....	271	750	570	514	129	67	2,301	11.8	32.6	24.8	22.3	5.6	2.9	100
Trade and clerical.....	225	278	190	187	51	23	954	23.6	29.1	19.9	19.6	5.4	2.4	100
Woodworkers.....	246	345	331	293	82	39	1,336	18.4	25.8	24.8	21.9	6.1	2.9	100
Miscellaneous.....	458	572	492	435	98	54	2,109	21.7	27.1	23.3	20.6	4.6	2.6	100
All occupations.....	8,303	12,071	10,468	9,418	2,269	956	43,485	19.1	27.8	24.1	21.6	5.2	2.2	100

<sup>1</sup> See article on "Disability among wage earners," in MONTHLY LABOR REVIEW, November, 1919, p. 31.



The above table shows occupational disability irrespective of age; that is, the results presented were influenced by the age distribution factor within each occupation.

In Table 6, which follows, all occupational experience as to duration of disability is given for specific and identical 5-year age groups. By means of this table the influence of the age factor can be eliminated as explained in the earlier article<sup>1</sup> and the extent of occupational influence on disability durations ascertained.

TABLE 6.—NUMBER AND PER CENT DISABLED EACH CLASSIFIED NUMBER OF WEEKS, IN EACH OCCUPATIONAL GROUP, BY 5-YEAR AGE GROUPS.

*Age group 25 to 29.*

Occupation.	Number disabled.							Per cent disabled.						
	Un- der 1 wk.	1 wk. and un- der 2 wks.	2 wks. and un- der 4 wks.	4 wks. and un- der 12 wks.	12 wks. and un- der 25 wks.	25 wks. and over.	To- tal.	Un- der 1 wk.	1 wk. and un- der 2 wks.	2 wks. and un- der 4 wks.	4 wks. and un- der 12 wks.	12 wks. and un- der 25 wks.	25 wks. and over.	To- tal.
Auto, carriage, and wagon manufacturing.....	5	3	.....	.....	1	.....	9	55.6	33.3	.....	.....	11.1	.....	100
Barbers.....	9	5	2	3	1	4	24	37.5	20.8	8.3	12.5	4.2	16.7	100
Bartenders.....	5	10	4	2	.....	.....	21	23.8	47.6	19.0	9.5	.....	.....	100
Blacksmiths.....	6	14	8	8	.....	1	37	16.2	37.8	21.6	21.6	.....	2.7	100
Bricklayers.....	13	9	10	9	1	.....	42	31.0	21.4	23.8	21.4	2.4	.....	100
Carpenters.....	42	39	31	19	4	2	137	30.7	28.5	22.6	13.9	2.9	1.4	100
Clay products manufacturing employees.....	1	2	1	1	1	.....	6	16.7	33.3	16.7	16.7	16.7	.....	100
Clothing manufacturing employees.....	18	7	9	6	.....	2	42	42.8	16.7	21.4	14.3	.....	4.8	100
Cooks and waiters.....	8	5	2	6	.....	.....	21	38.1	23.8	9.5	28.6	.....	.....	100
Drivers.....	46	41	48	39	4	.....	178	25.8	23.0	27.0	21.9	2.2	.....	100
Dyers.....	5	7	1	.....	1	1	15	33.3	46.6	6.7	.....	6.7	6.7	100
Electrical workers.....	10	16	8	9	1	.....	44	22.7	36.4	18.2	20.4	2.3	.....	100
Engineers and firemen.....	13	16	10	9	1	.....	49	26.5	32.7	20.4	18.4	2.0	.....	100
Farmers, gardeners, and florists.....	5	8	5	4	.....	.....	22	22.7	36.4	22.7	18.2	.....	.....	100
Food employees.....	26	36	19	12	2	1	96	27.1	37.5	19.8	12.5	2.1	1.0	100
Freight handlers.....	4	2	.....	5	.....	.....	11	36.4	18.2	.....	45.4	.....	.....	100
Glassworkers.....	5	10	6	7	.....	.....	28	17.9	35.7	21.4	25.0	.....	.....	100
Jewelers.....	7	6	3	.....	1	2	19	36.8	31.6	15.8	.....	5.3	10.5	100
Laborers, not specified.....	118	154	118	74	9	9	482	24.5	31.9	24.5	15.3	1.9	1.9	100
Leather workers.....	14	16	9	13	3	4	59	23.7	27.1	15.3	22.0	5.1	6.8	100
Liquor manufacturing employees.....	91	102	61	51	10	3	318	28.6	32.1	19.2	16.0	3.1	.9	100
Machinists.....	96	117	91	62	13	4	383	25.1	30.5	23.8	16.2	3.4	1.0	100
Miners.....	40	85	65	46	2	2	240	16.7	35.4	27.1	19.2	.8	.8	100
Molders.....	16	8	20	9	1	.....	54	29.6	14.8	37.0	16.7	1.9	.....	100
Other building construction employees.....	2	8	2	1	1	.....	14	14.3	57.1	14.3	7.1	7.1	.....	100
Other manufacturing employees.....	27	25	19	15	2	.....	88	30.7	28.4	21.6	17.0	2.3	.....	100
Other metal workers.....	41	36	32	25	3	2	139	29.5	25.9	23.0	18.0	2.2	1.4	100
Painters.....	10	21	14	8	3	2	53	17.2	36.2	24.1	13.8	5.2	3.4	100
Plasterers.....	3	1	.....	1	.....	1	6	50.0	16.7	.....	16.7	.....	16.7	100
Plumbers.....	28	22	10	15	4	.....	79	35.4	27.8	12.7	19.0	5.1	.....	100
Printers and engravers.....	19	20	14	15	4	.....	72	26.4	27.8	19.4	20.8	5.6	.....	100
Professional.....	1	4	3	1	2	.....	11	9.1	36.3	27.3	9.1	18.2	.....	100
Railway employees.....	6	2	3	1	.....	.....	12	50.0	16.7	25.0	8.3	.....	.....	100
Sheet-metal workers.....	17	15	7	3	1	.....	43	39.5	34.9	16.3	7.0	2.3	.....	100
Slaughtering and meat packing employees.....	24	33	18	15	1	.....	91	26.4	36.2	19.8	16.5	1.1	.....	100
Stone and granite workers.....	2	5	1	1	2	.....	11	18.2	45.4	9.1	9.1	18.2	.....	100
Tanners.....	2	.....	.....	1	.....	.....	3	66.7	.....	.....	33.3	.....	.....	100
Textile manufacturing employees.....	17	25	19	14	1	3	79	21.5	31.6	24.1	17.7	1.3	3.8	100
Tobacco and cigars.....	24	73	39	18	5	4	163	14.7	44.8	23.9	11.0	3.1	2.5	100
Trade and clerical.....	44	42	12	20	7	3	128	34.4	32.8	9.4	15.6	5.5	2.3	100
Woodworkers.....	31	21	10	12	1	.....	75	41.3	28.0	13.3	16.0	1.3	.....	100
Miscellaneous.....	45	56	30	25	7	2	165	27.3	33.9	18.2	15.2	4.2	1.2	100
All occupations.....	946	1,127	764	585	100	52	3,574	26.5	31.5	21.4	16.4	2.8	1.4	100

<sup>1</sup>See article on "Disability among wage earners," in MONTHLY LABOR REVIEW, November, 1919, pp. 31, 32.

## DURATION OF WAGE EARNERS' DISABILITIES.

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TABLE 6.—NUMBER AND PER CENT DISABLED EACH CLASSIFIED NUMBER OF WEEKS, IN EACH OCCUPATIONAL GROUP, BY 5-YEAR AGE GROUPS—Continued.

Age group 30 to 34.

Occupation.	Number disabled.							Per cent disabled.						
	Under 1 wk.	1 wk. and under 2 wks.	2 wks. and under 4 wks.	4 wks. and under 12 wks.	12 wks. and under 25 wks.	25 wks. and over.	Total.	Under 1 wk.	1 wk. and under 2 wks.	2 wks. and under 4 wks.	4 wks. and under 12 wks.	12 wks. and under 25 wks.	25 wks. and over.	Total.
Auto, carriage, and wagon manufacturing.....	4	5	4	4	1	.....	18	22.2	27.8	22.2	22.2	5.6	.....	100
Barbers.....	6	10	6	7	1	.....	30	20.0	33.3	20.0	23.3	3.3	.....	100
Bartenders.....	9	15	9	8	.....	2	43	20.9	34.9	20.9	18.6	.....	4.7	100
Blacksmiths.....	13	11	12	8	2	.....	46	28.3	23.9	26.1	17.4	4.3	.....	100
Bricklayers.....	13	13	12	6	.....	.....	44	29.5	29.5	27.3	13.6	.....	.....	100
Carpenters.....	58	79	57	40	8	6	248	23.4	31.9	23.0	16.1	3.2	2.4	100
Clay products manufacturing employees.....	2	1	3	3	4	.....	13	15.4	7.7	23.1	23.1	30.7	.....	100
Clothing manufacturing employees.....	21	19	12	8	.....	1	61	34.4	31.1	19.7	13.1	.....	1.6	100
Cooks and waiters.....	15	15	9	4	2	.....	45	33.3	33.3	20.0	8.9	4.4	.....	100
Drivers.....	53	60	54	46	11	2	226	23.5	26.5	23.9	20.4	4.9	.....	100
Dyers.....	4	4	2	1	.....	.....	11	36.4	36.4	18.1	9.1	.....	.....	100
Electrical workers.....	8	16	6	7	1	1	39	20.5	41.0	15.4	17.9	2.6	2.6	100
Engineers and firemen.....	26	24	14	8	1	1	74	35.1	32.4	18.9	10.8	1.4	1.4	100
Farmers, gardeners, and florists.....	3	7	9	2	2	.....	23	13.0	30.4	39.1	8.7	8.7	.....	100
Food employees.....	33	39	38	24	8	5	147	22.4	26.5	25.9	16.3	5.4	3.4	100
Freight handlers.....	2	1	5	1	.....	.....	9	22.2	11.1	55.6	11.1	.....	.....	100
Glassworkers.....	5	6	10	.....	2	.....	23	21.7	26.1	43.5	.....	8.7	.....	100
Jewelers.....	5	2	6	4	1	.....	18	27.8	11.1	33.3	22.2	5.6	.....	100
Laborers, not specified.....	161	174	143	100	11	9	598	26.9	29.1	23.9	16.7	1.8	1.5	100
Leather workers.....	24	28	14	8	.....	.....	74	32.4	37.8	18.9	10.8	.....	.....	100
Liquor manufacturing employees.....	135	161	109	83	17	3	508	26.6	31.7	21.5	16.3	3.3	.....	100
Machinists.....	150	155	127	95	18	8	553	27.1	28.0	23.0	17.2	3.3	1.4	100
Miners.....	55	102	64	65	9	5	300	18.3	34.0	21.3	21.7	3.0	1.7	100
Molders.....	29	34	34	22	3	.....	122	23.8	27.9	27.9	18.0	2.4	.....	100
Other building constructing employees.....	4	2	1	1	.....	.....	8	50.0	25.0	12.5	12.5	.....	.....	100
Other manufacturing employees.....	23	26	21	18	5	1	94	24.5	27.7	22.3	19.1	5.3	1.1	100
Other metal workers.....	54	57	35	30	8	.....	184	29.3	31.0	19.0	16.3	4.3	.....	100
Painters.....	28	18	12	13	4	3	78	35.9	23.1	15.4	16.7	5.1	3.8	100
Plasterers.....	1	.....	1	2	1	.....	5	20.0	.....	20.0	40.0	20.0	.....	100
Plumbers.....	15	18	11	11	.....	.....	55	27.3	32.7	20.0	20.0	.....	.....	100
Printers and engravers.....	21	17	5	9	3	1	56	37.5	30.4	8.9	16.1	5.3	1.8	100
Professional.....	2	7	2	2	1	1	15	13.3	46.7	13.3	13.3	6.7	6.7	100
Railway employees.....	10	9	6	4	1	1	31	32.3	29.0	19.4	12.9	3.2	3.2	100
Sheet-metal workers.....	19	14	10	7	2	.....	52	36.5	26.9	19.2	13.5	3.8	.....	100
Slaughtering and meat packing employees.....	46	34	51	31	2	1	165	27.9	20.6	30.9	18.8	1.2	.....	100
Stone and granite workers.....	6	8	7	3	1	.....	25	24.0	32.0	28.0	12.0	4.0	.....	100
Tanners.....	8	4	4	4	.....	.....	20	40.0	20.0	20.0	20.0	.....	.....	100
Textile manufacturing employees.....	31	34	26	23	5	3	122	25.4	27.9	21.3	18.8	4.1	2.5	100
Tobacco and cigars.....	44	92	57	38	10	7	248	17.7	37.1	23.0	15.3	4.0	2.8	100
Trade and clerical.....	35	37	20	13	5	.....	110	31.8	33.6	18.2	11.8	4.5	.....	100
Woodworkers.....	29	41	21	20	3	.....	114	25.4	36.0	18.4	17.5	2.6	.....	100
Miscellaneous.....	66	68	43	20	5	5	207	31.9	32.9	20.8	9.6	2.4	2.4	100
All occupations.....	1,276	1,467	1,092	803	158	66	4,862	26.2	30.2	22.5	16.5	3.2	1.4	100

Age group 35 to 39.

Auto, carriage, and wagon manufacturing.....	8	6	4	4	1	1	24	33.3	25.0	16.7	16.7	4.2	4.2	100
Barbers.....	10	13	5	8	.....	.....	36	27.8	36.1	13.9	22.2	.....	.....	100
Bartenders.....	9	17	14	23	7	2	72	12.5	23.6	19.4	31.9	9.7	2.8	100
Blacksmiths.....	7	19	17	13	2	2	60	11.7	31.7	28.3	21.7	3.3	3.3	100
Bricklayers.....	17	15	19	10	3	4	68	25.0	22.1	27.9	14.7	4.4	5.9	100
Carpenters.....	91	117	70	74	16	9	377	24.1	31.0	18.6	19.6	4.2	2.4	100
Clay products manufacturing employees.....	1	4	3	4	.....	2	14	7.1	28.6	21.4	28.6	.....	14.3	100
Clothing manufacturing employees.....	24	28	21	14	3	1	91	26.4	30.8	23.0	15.4	3.3	1.1	100

TABLE 3.—NUMBER AND PER CENT DISABLED EACH CLASSIFIED NUMBER OF WEEKS, IN EACH OCCUPATIONAL GROUP, BY 5-YEAR AGE GROUPS—Continued.

Age group 35 to 39—Concluded.

Occupation.	Number disabled.							Per cent disabled.						
	Under 1 wk.	1 wk. and under 2 wks.	2 wks. and under 4 wks.	4 wks. and under 12 wks.	12 wks. and under 25 wks.	25 wks. and over.	Total.	Under 1 wk.	1 wk. and under 2 wks.	2 wks. and under 4 wks.	4 wks. and under 12 wks.	12 wks. and under 25 wks.	25 wks. and over.	Total.
Cooks and waiters.....	13	19	16	12	2	.....	62	21.0	30.6	25.8	19.4	3.2	.....	100
Drivers.....	66	78	84	79	15	8	330	20.0	23.6	25.5	23.9	4.5	2.4	100
Dyers.....	2	5	3	7	.....	.....	17	11.8	29.4	17.6	41.2	.....	.....	100
Electrical workers.....	8	9	2	5	1	.....	25	32.0	36.0	8.0	20.0	4.0	.....	100
Engineers and firemen.....	28	25	20	28	6	1	108	25.9	23.1	18.5	25.9	5.6	.9	100
Farmers, gardeners, florists..	4	12	3	6	.....	.....	25	16.0	48.0	12.0	24.0	.....	.....	100
Food employees.....	48	70	60	62	10	5	255	18.8	27.5	23.5	24.3	3.9	2.0	100
Freight handlers.....	4	12	7	12	.....	1	36	11.1	33.3	19.4	33.3	.....	2.8	100
Glassworkers.....	4	8	2	4	2	1	21	19.0	38.1	9.5	19.0	9.5	4.8	100
Jewelers.....	5	5	6	5	1	1	23	21.7	26.1	21.7	4.3	4.3	.....	100
Laborers, not specified.....	132	178	158	118	27	7	620	21.3	28.7	25.5	19.0	4.4	1.1	100
Leather workers.....	34	34	25	13	4	1	111	30.6	30.6	22.5	11.7	3.6	.9	100
Liquor manufacturing employees.....	117	207	145	138	19	12	638	18.3	32.4	22.7	21.6	3.0	1.9	100
Machinists.....	148	197	136	93	23	8	605	24.5	32.5	22.5	15.4	3.8	1.3	100
Miners.....	57	97	95	73	23	10	355	16.0	27.3	26.8	20.6	6.5	2.8	100
Molders.....	25	44	23	25	7	.....	124	20.2	35.5	18.5	20.2	5.6	.....	100
Other building construction employees.....	8	6	3	4	.....	1	22	36.4	27.3	13.6	18.2	.....	4.5	100
Other manufacturing employees.....	34	37	19	19	4	.....	113	30.1	32.7	16.8	16.8	3.5	.....	100
Other metal workers.....	66	69	60	46	7	.....	248	26.6	27.8	24.2	18.5	2.8	.....	100
Painters.....	32	27	27	34	3	4	127	25.2	21.3	21.3	26.8	2.3	3.1	100
Plasterers.....	4	3	2	1	1	.....	11	36.3	27.3	18.2	9.1	9.1	.....	100
Plumbers.....	12	14	11	7	1	.....	45	26.7	31.1	24.4	15.6	2.2	.....	100
Printers and engravers.....	17	14	14	7	13	3	68	25.0	20.6	20.6	10.3	19.1	4.4	100
Professional.....	5	7	2	2	.....	.....	16	31.2	43.8	12.5	12.5	.....	.....	100
Railway employees.....	8	13	13	7	3	.....	44	18.2	29.5	29.5	15.9	6.8	.....	100
Sheet-metal workers.....	12	15	14	6	3	1	51	23.5	29.4	27.5	11.8	5.9	1.9	100
Slaughtering and meat packing employees.....	56	65	58	53	10	2	244	23.0	26.6	23.8	21.7	4.1	.8	100
Stone and granite workers.....	7	16	15	10	.....	4	52	13.5	30.8	28.8	19.2	.....	7.7	100
Tanners.....	9	10	11	4	1	1	36	25.0	27.8	30.5	11.1	2.8	2.8	100
Textile manufacturing employees.....	31	51	41	23	6	.....	152	20.4	33.6	27.0	15.1	3.9	.....	100
Tobacco and cigars.....	44	112	63	50	8	4	281	15.7	39.9	22.4	17.8	2.8	1.4	100
Trade and clerical.....	39	42	28	25	5	4	143	27.2	29.4	19.6	17.5	3.5	2.8	100
Woodworkers.....	26	43	44	18	9	2	142	18.3	30.3	31.0	12.7	6.3	1.4	100
Miscellaneous.....	79	86	72	51	10	7	305	25.9	28.2	23.6	16.7	3.3	2.3	100
All occupations.....	1,351	1,849	1,435	1,197	256	109	6,197	21.8	29.8	23.2	19.3	4.1	1.8	100

Age group 40 to 44.

Auto, carriage, and wagon manufacturing.....	2	4	6	3	.....	.....	15	13.3	26.7	40.0	20.0	.....	.....	100
Barbers.....	9	7	7	15	3	.....	41	21.9	17.1	17.1	36.6	7.3	.....	100
Bartenders.....	18	16	15	22	10	4	85	21.2	18.8	17.6	25.9	11.8	4.7	100
Blacksmiths.....	16	25	24	22	4	5	96	16.7	26.0	25.0	22.9	4.2	5.2	100
Bricklayers.....	20	22	20	18	3	3	86	23.3	25.5	23.3	20.9	3.5	3.5	100
Carpenters.....	82	119	95	88	13	9	406	20.2	29.3	23.4	21.7	3.2	2.2	100
Clay products manufacturing employees.....	4	8	7	6	2	.....	27	14.8	29.6	25.9	22.2	7.4	.....	100
Clothing manufacturing employees.....	32	47	34	25	4	1	143	22.4	32.8	23.8	17.5	2.8	.7	100
Cooks and waiters.....	16	23	23	23	2	6	93	17.2	24.7	24.7	24.7	2.2	6.5	100
Drivers.....	73	112	104	93	25	10	417	17.5	26.9	24.9	22.3	6.0	2.4	100
Dyers.....	3	3	3	3	2	1	15	20.0	20.0	20.0	20.0	13.3	6.7	100
Electrical workers.....	8	10	10	5	1	.....	34	23.5	29.4	29.4	14.7	2.9	.....	100
Engineers and firemen.....	21	43	26	26	8	3	127	16.5	33.8	20.5	20.5	6.3	2.4	100
Farmers, gardeners, florists..	8	11	15	11	2	2	49	16.3	22.4	30.6	22.4	4.1	4.1	100
Food employees.....	60	79	76	61	20	5	301	20.0	26.2	25.2	20.3	6.6	1.7	100
Freight handlers.....	3	7	15	8	3	2	38	7.9	18.4	39.5	21.0	7.9	5.3	100
Glassworkers.....	8	12	3	6	2	1	32	25.0	37.5	9.4	18.8	6.2	3.1	100
Jewelers.....	7	6	6	3	.....	.....	22	31.8	27.3	27.3	13.6	.....	.....	100
Laborers, not specified.....	188	235	175	136	31	9	774	24.3	30.3	22.6	17.6	4.0	1.2	100



## DURATION OF WAGE EARNERS' DISABILITIES.

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TABLE 6.—NUMBER AND PER CENT DISABLED EACH CLASSIFIED NUMBER OF WEEKS, IN EACH OCCUPATIONAL GROUP, BY 5-YEAR AGE GROUPS—Continued.

Age group 40 to 44—Concluded.

Occupation.	Number disabled.							Per cent disabled.						
	Under 1 wk.	1 wk. and under 2 wks.	2 wks. and under 4 wks.	4 wks. and under 12 wks.	12 wks. and under 25 wks.	25 wks. and over.	Total.	Under 1 wk.	1 wk. and under 2 wks.	2 wks. and under 4 wks.	4 wks. and under 12 wks.	12 wks. and under 25 wks.	25 wks. and over.	Total.
Leather workers.....	27	33	25	24	4	2	115	23.5	28.7	21.7	20.9	3.5	1.7	100
Liquor manufacturing employees.....	118	217	197	163	39	17	751	15.7	28.9	26.2	21.7	5.2	2.3	100
Machinists.....	134	141	130	117	34	22	578	23.2	24.4	22.5	20.2	5.9	3.8	100
Miners.....	41	90	94	76	21	11	333	12.3	27.0	28.2	22.8	6.3	3.3	100
Molders.....	20	48	38	39	2	2	149	13.4	32.2	25.5	26.2	1.3	1.3	100
Other building construction employees.....	1	6	5	1	.....	.....	13	7.7	46.1	38.5	7.7	.....	.....	100
Other manufacturing employees.....	23	40	28	30	7	.....	128	18.0	31.2	21.9	23.4	5.5	.....	100
Other metal workers.....	64	85	71	48	12	.....	280	22.8	30.4	25.4	17.1	4.3	.....	100
Painters.....	25	51	43	34	10	6	169	14.8	30.2	25.4	20.1	5.9	3.6	100
Plasterers.....	7	8	2	6	1	1	25	28.0	32.0	8.0	24.0	4.0	4.0	100
Plumbers.....	5	8	5	8	1	1	28	17.8	28.6	17.8	28.6	3.6	3.6	100
Printers and engravers.....	24	22	23	24	3	9	105	22.8	21.0	21.9	22.8	2.9	8.6	100
Professional.....	4	7	1	1	.....	.....	13	30.8	53.8	7.7	7.7	.....	.....	100
Railway employees.....	4	6	7	7	2	.....	26	15.4	23.1	26.9	26.9	7.7	.....	100
Sheet-metal workers.....	9	20	17	20	3	1	70	12.8	28.6	24.3	28.6	4.3	1.4	100
Slaughtering and meat packing employees.....	42	78	50	44	12	4	230	18.3	34.0	21.7	19.1	5.2	1.7	100
Stone and granite workers.....	10	10	14	10	2	1	47	21.3	21.3	29.8	21.3	4.2	2.1	100
Tanners.....	7	22	8	9	2	.....	48	14.6	45.8	16.7	18.7	4.2	.....	100
Textile manufacturing employees.....	55	54	42	46	11	2	210	26.2	25.7	20.0	21.9	5.2	1.0	100
Tobacco and cigars.....	38	106	78	50	2	3	277	13.7	38.3	28.1	18.1	7	1.1	100
Trade and clerical.....	31	32	36	25	7	4	135	23.0	23.7	26.6	18.5	5.2	3.0	100
Woodworkers.....	29	49	53	63	15	8	217	13.4	22.6	24.4	29.0	6.9	3.7	100
Miscellaneous.....	91	86	92	66	14	7	356	25.6	24.2	25.8	18.5	3.9	2.0	100
All occupations.....	1,387	2,008	1,723	1,485	339	162	7,104	19.5	28.3	24.2	20.9	4.8	2.3	100

Age group 45 to 49.

Auto, carriage, and wagon manufacturing.....	7	10	5	3	2	1	28	25.0	35.7	17.9	10.7	7.1	3.6	100
Barbers.....	10	9	6	10	7	1	43	23.2	20.9	14.0	23.3	16.3	2.3	100
Bartenders.....	8	14	20	20	3	1	66	12.1	21.2	30.3	30.3	4.5	1.5	100
Blacksmiths.....	19	19	14	20	1	2	75	25.3	25.3	18.7	26.7	1.3	2.7	100
Bricklayers.....	10	20	21	20	3	2	76	13.2	26.3	27.6	26.3	3.9	2.6	100
Carpenters.....	56	113	126	105	20	10	430	13.0	26.3	29.3	24.4	4.7	2.3	100
Clay products manufacturing employees.....	4	7	5	6	1	.....	23	17.4	30.4	21.7	26.1	4.3	.....	100
Clothing manufacturing employees.....	27	42	47	38	10	1	165	16.4	25.4	28.5	23.0	6.1	6	100
Cooks and waiters.....	14	32	23	24	4	2	99	14.1	32.3	23.2	24.2	4.0	2.0	100
Drivers.....	50	110	114	101	19	8	402	12.4	27.4	28.4	25.1	4.7	2.0	100
Dyers.....	4	5	8	7	1	1	26	15.4	19.2	30.8	26.9	3.8	3.8	100
Electrical workers.....	.....	5	3	6	2	.....	16	.....	31.2	18.8	37.5	12.5	.....	100
Engineers and firemen.....	27	48	44	27	9	4	159	17.0	30.2	27.7	17.0	5.6	2.5	100
Farmers, gardeners, florists.....	9	10	12	7	2	.....	40	22.5	25.0	30.0	17.5	5.0	.....	100
Food employees.....	57	84	85	59	18	4	307	18.6	27.3	27.7	19.2	5.9	1.3	100
Freight handlers.....	4	12	12	10	1	2	41	9.7	29.3	29.3	24.4	2.4	4.9	100
Glassworkers.....	10	16	11	10	1	.....	48	20.8	33.3	22.9	20.8	2.1	.....	100
Jewelers.....	8	7	8	6	.....	1	30	26.7	23.3	26.7	20.0	.....	3.3	100
Laborers, not specified.....	145	223	185	158	39	12	762	19.0	29.3	24.3	20.7	5.1	1.6	100
Leather workers.....	43	39	43	31	8	3	167	25.7	23.4	25.7	18.6	4.8	1.8	100
Liquor manufacturing employees.....	100	166	198	195	45	24	728	13.7	22.8	27.2	26.8	6.2	3.3	100
Machinists.....	70	144	105	108	28	13	468	14.9	30.8	22.4	23.1	6.0	2.8	100
Miners.....	46	89	102	96	18	8	359	12.8	24.8	28.4	26.7	5.0	2.2	100
Molders.....	19	36	25	22	7	1	110	17.3	32.7	22.7	20.0	6.4	9	100
Other building construction employees.....	3	5	8	4	3	1	24	12.5	20.8	33.3	16.7	12.5	4.2	100
Other manufacturing employees.....	17	40	34	30	6	3	130	13.1	30.8	26.1	23.1	4.6	2.3	100
Other metal workers.....	32	71	62	45	12	1	223	14.3	31.8	27.8	20.2	5.4	4	100

TABLE 6.—NUMBER AND PER CENT DISABLED EACH CLASSIFIED NUMBER OF WEEKS, IN EACH OCCUPATIONAL GROUP, BY 5-YEAR AGE GROUPS—Continued.

Age group 45 to 49—Concluded.

Occupation.	Number disabled.							Per cent disabled.						
	Under 1 wk.	1 wk. and under 2 wks.	2 wks. and under 4 wks.	4 wks. and under 12 wks.	12 wks. and under 25 wks.	25 wks. and over.	Total.	Under 1 wk.	1 wk. and under 2 wks.	2 wks. and under 4 wks.	4 wks. and under 12 wks.	12 wks. and under 25 wks.	25 wks. and over.	Total.
Painters.....	22	41	47	45	8	4	167	13.2	24.6	28.1	26.9	4.8	2.4	100
Plasterers.....	6	4	7	5	—	—	22	27.3	18.2	31.8	22.7	—	—	100
Plumbers.....	7	8	12	5	3	1	36	19.4	22.2	33.3	13.9	8.3	2.8	100
Printers and engravers.....	15	17	15	17	6	2	72	20.8	23.6	20.8	23.6	8.3	2.8	100
Professional.....	3	7	3	5	—	—	18	16.7	38.9	16.7	27.7	—	—	100
Railway employees.....	4	7	5	10	1	2	29	13.8	24.1	17.2	34.5	3.4	6.9	100
Sheet-metal workers.....	17	18	17	23	5	2	82	20.7	22.0	20.7	28.0	6.1	2.4	100
Slaughtering and meat packing employees.....	40	48	61	80	9	6	244	16.4	19.7	25.0	32.8	3.7	2.4	100
Stone and granite workers.....	3	14	11	9	5	2	44	6.8	31.8	25.0	20.5	11.4	4.5	100
Tanners.....	16	21	27	15	8	2	89	18.0	23.6	30.3	16.9	9.0	2.2	100
Textile manufacturing employees.....	61	65	63	49	14	5	257	23.7	25.3	24.5	19.1	5.4	2.0	100
Tobacco and cigars.....	43	96	69	64	9	7	288	14.9	33.3	24.0	22.2	3.1	2.4	100
Trade and clerical.....	20	41	30	33	9	3	136	14.7	30.1	22.1	24.3	6.6	2.2	100
Woodworkers.....	51	68	66	52	16	6	259	19.7	26.2	25.5	20.1	6.2	2.3	100
Miscellaneous.....	75	103	87	76	15	6	362	20.7	28.5	24.0	21.0	4.1	1.7	100
All occupations.....	1,182	1,934	1,846	1,656	378	154	7,150	16.5	27.0	25.8	23.2	5.3	2.2	100

Age group 50 to 54.

Auto, carriage, and wagon manufacturing.....	8	8	13	11	2	—	42	19.0	19.0	31.0	26.2	4.8	—	100
Barbers.....	9	7	5	5	—	—	26	34.6	26.9	19.2	19.2	—	—	100
Bartenders.....	7	10	20	8	7	3	55	12.7	18.2	36.4	14.5	12.7	5.5	100
Blacksmiths.....	6	30	22	16	6	1	81	7.4	37.0	27.2	19.8	7.4	1.2	100
Bricklayers.....	9	28	28	15	4	1	85	10.6	32.9	32.9	17.7	4.7	1.2	100
Carpenters.....	59	114	141	135	31	17	497	11.9	22.9	28.4	27.2	6.2	3.4	100
Clay products manufacturing employees.....	6	12	7	5	—	—	30	20.0	40.0	23.3	16.7	—	—	100
Clothing manufacturing employees.....	21	38	35	44	12	1	151	13.9	25.2	23.2	29.1	7.9	.7	100
Cooks and waiters.....	8	22	14	21	3	3	71	11.3	31.0	19.7	29.6	4.2	4.2	100
Drivers.....	27	53	68	64	23	9	244	11.1	21.7	27.9	26.2	9.4	3.7	100
Dyers.....	6	15	4	8	1	2	36	16.7	41.7	11.1	22.2	2.8	5.5	100
Electrical workers.....	1	5	2	1	—	—	9	11.1	55.6	22.2	11.1	—	—	100
Engineers and firemen.....	18	37	33	23	9	2	122	14.8	30.3	27.0	18.9	7.4	1.6	100
Farmers, gardeners, florists.....	5	7	5	5	3	—	25	20.0	28.0	20.0	20.0	12.0	—	100
Food employees.....	32	45	69	52	17	9	224	14.3	20.1	30.8	23.2	7.6	4.0	100
Freight handlers.....	4	7	9	9	8	—	37	10.8	18.9	24.3	24.3	21.6	—	100
Glassworkers.....	3	8	7	5	3	1	27	11.1	29.6	25.9	18.5	11.1	3.7	100
Jewelers.....	2	7	2	8	1	—	20	10.0	35.0	10.0	40.0	5.0	—	100
Laborers, not specified.....	115	178	182	173	43	7	698	16.5	25.5	26.0	24.8	6.2	1.0	100
Leather workers.....	32	39	40	46	9	8	174	18.4	22.4	23.0	26.4	5.2	4.6	100
Liquor manufacturing employees.....	71	124	152	165	33	8	553	12.8	22.4	27.5	29.8	6.0	1.5	100
Machinists.....	49	79	86	92	25	3	334	14.7	23.7	25.7	27.5	7.5	.9	100
Miners.....	22	64	72	58	25	5	246	8.9	26.0	29.3	23.6	10.2	2.0	100
Molders.....	17	16	18	20	1	1	73	23.3	21.9	24.6	27.4	1.4	1.4	100
Other building construction employees.....	3	8	1	4	3	—	19	15.8	42.1	5.3	21.0	15.8	—	100
Other manufacturing employees.....	16	30	28	33	8	—	115	13.9	26.1	24.3	28.7	7.0	—	100
Other metal workers.....	35	50	59	54	14	2	214	16.4	23.4	27.6	25.2	6.5	.9	100
Painters.....	26	39	45	44	14	6	174	14.9	22.4	25.9	25.3	8.1	3.4	100
Plasterers.....	3	4	7	1	1	1	17	17.6	23.5	41.2	5.9	5.9	5.9	100
Plumbers.....	5	7	4	1	1	1	19	26.3	36.8	21.0	5.3	5.3	5.3	100
Printers and engravers.....	9	9	12	18	3	7	58	15.5	15.5	20.7	31.0	5.2	12.1	100
Professional.....	3	9	4	4	2	—	22	13.6	40.9	18.2	18.2	9.1	—	100
Railway employees.....	8	4	3	3	1	—	19	42.1	21.0	15.8	15.9	5.3	—	100
Sheet-metal workers.....	14	32	20	10	5	—	81	17.3	39.5	24.7	12.3	6.2	—	100
Slaughtering and meat packing employees.....	22	57	63	56	10	9	217	10.1	26.3	29.0	25.8	4.6	4.2	100
Stone and granite workers.....	3	14	11	10	4	3	45	6.7	31.1	24.4	22.2	8.9	6.7	100
Tanners.....	15	21	18	11	2	—	69	21.7	30.4	26.1	15.9	2.9	2.0	100

## DURATION OF WAGE EARNERS' DISABILITIES.

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TABLE 6.—NUMBER AND PER CENT DISABLED EACH CLASSIFIED NUMBER OF WEEKS IN EACH OCCUPATIONAL GROUP, BY 5-YEAR AGE GROUPS—Concluded.

Age group 50 to 54—Concluded.

Occupation.	Number disabled.							Per cent disabled.						
	Under 1 wk.	1 wk. and under 2 wks.	2 wks. and under 4 wks.	4 wks. and under 12 wks.	12 wks. and under 25 wks.	25 wks. and over.	Total.	Under 1 wk.	1 wk. and under 2 wks.	2 wks. and under 4 wks.	4 wks. and under 12 wks.	12 wks. and under 25 wks.	25 wks. and over.	Total.
Textile manufacturing employees.....	37	59	65	46	6	2	215	17.2	27.4	30.2	21.4	2.8	0.9	100
Tobacco and cigars.....	31	82	66	87	24	8	298	10.4	27.5	22.1	29.2	8.1	2.7	100
Trade and clerical.....	13	30	22	26	8	2	101	12.9	29.7	21.8	25.7	7.9	2.0	100
Woodworkers.....	41	56	58	50	15	7	227	18.1	24.7	25.5	22.0	6.6	3.1	100
Miscellaneous.....	38	69	71	77	15	4	274	13.9	25.2	25.9	28.1	5.5	1.4	100
All occupations.....	859	1,533	1,591	1,524	402	135	6,044	14.2	25.4	26.3	25.2	6.7	2.2	100

Age group 55 to 59.

Auto, carriage, and wagon manufacturing.....	3	4	7	6	.....	1	21	14.3	19.0	33.3	28.6	.....	4.8	100
Barbers.....	.....	4	2	3	2	2	13	.....	30.7	15.4	23.1	15.4	15.4	100
Bartenders.....	4	9	7	7	2	1	30	13.3	30.0	23.3	23.3	6.7	3.3	100
Blacksmiths.....	9	19	20	24	6	.....	78	11.5	24.4	25.6	30.8	7.7	.....	100
Bricklayers.....	8	12	23	19	7	6	75	10.7	16.0	30.7	25.3	9.3	8.0	100
Carpenters.....	49	89	111	113	34	6	402	12.2	22.1	27.6	28.1	8.5	1.5	100
Clay products manufacturing employees.....	2	2	5	4	.....	.....	13	15.4	15.4	38.4	30.8	.....	.....	100
Clothing manufacturing employees.....	13	27	31	30	7	5	113	11.5	23.9	27.4	26.6	6.2	4.4	100
Cooks and waiters.....	8	9	18	14	8	2	59	13.6	15.2	30.5	23.7	13.6	3.4	100
Drivers.....	11	26	15	33	6	4	95	11.6	27.4	15.8	34.7	6.3	4.2	100
Dyers.....	5	5	7	13	3	.....	33	15.2	15.2	21.2	39.4	9.0	.....	100
Electrical workers.....	.....	.....	1	2	.....	.....	3	.....	.....	33.3	66.7	.....	.....	100
Engineers and firemen.....	8	19	26	18	9	1	81	9.9	23.5	32.1	22.2	11.1	1.2	100
Farmers, gardeners, florists.....	2	13	4	6	2	1	28	7.1	46.4	14.3	21.4	7.1	3.6	100
Food employees.....	14	20	35	38	14	4	125	11.2	16.0	28.0	30.4	11.2	3.2	100
Freight handlers.....	.....	5	8	4	3	.....	20	.....	25.0	40.0	20.0	15.0	.....	100
Glassworkers.....	2	4	7	8	2	1	24	8.3	16.7	29.2	33.3	8.3	4.2	100
Jewelers.....	4	3	3	6	1	.....	17	23.5	17.6	17.6	35.3	5.9	.....	100
Laborers, not specified.....	56	111	107	119	29	18	440	12.7	25.2	24.3	27.1	6.6	4.1	100
Leather workers.....	15	24	20	30	7	8	104	14.4	23.1	19.2	28.9	6.7	7.7	100
Liquor manufacturing employees.....	34	74	81	81	19	9	298	11.4	24.8	27.2	27.2	6.4	3.0	100
Machinists.....	37	63	58	67	28	6	259	14.3	24.3	22.4	25.9	10.8	2.3	100
Miners.....	17	41	44	57	16	4	179	9.5	22.9	24.6	31.8	8.9	2.2	100
Molders.....	11	15	17	9	2	1	55	20.0	27.3	30.9	16.4	3.6	1.8	100
Other building construction employees.....	2	1	1	4	.....	2	10	20.0	10.0	10.0	40.0	.....	20.0	100
Other manufacturing employees.....	18	22	23	27	4	1	95	18.9	23.2	24.2	28.4	4.2	1.1	100
Other metal workers.....	29	39	36	42	11	3	160	18.1	24.4	22.5	26.2	6.9	1.9	100
Painters.....	13	26	27	20	6	1	93	14.0	28.0	29.0	21.5	6.5	1.0	100
Plasterers.....	.....	1	4	4	1	.....	10	.....	10.0	40.0	40.0	10.0	.....	100
Plumbers.....	1	1	2	2	.....	.....	6	16.7	16.7	33.3	33.3	.....	.....	100
Printers and engravers.....	12	19	17	14	6	2	70	17.1	27.1	24.3	20.0	8.6	2.9	100
Professional.....	1	4	3	5	2	.....	15	6.7	26.7	20.0	33.3	13.3	.....	100
Railway employees.....	1	.....	1	3	.....	2	7	14.3	.....	14.3	42.8	.....	28.6	100
Sheet-metal workers.....	4	25	19	13	7	3	71	5.6	35.2	26.8	18.3	9.9	4.2	100
Slaughtering and meat packing employees.....	7	18	17	27	11	4	84	8.3	21.4	20.2	32.1	13.1	4.8	100
Stone and granite workers.....	11	7	8	9	2	.....	37	29.7	18.9	21.6	24.3	5.4	.....	100
Tanners.....	11	12	9	12	5	1	50	22.0	24.0	18.0	24.0	10.0	2.0	100
Textile manufacturing employees.....	23	41	37	39	13	4	157	14.6	26.1	23.6	24.8	8.8	2.5	100
Tobacco and cigars.....	24	91	104	75	24	12	330	7.3	27.6	31.5	22.7	7.3	3.6	100
Trade and clerical.....	2	16	11	15	8	1	53	3.8	30.2	20.7	28.3	15.1	1.9	100
Woodworkers.....	25	38	48	35	13	10	169	14.8	22.5	28.4	20.7	7.7	5.9	100
Miscellaneous.....	26	45	45	48	12	10	186	14.0	24.2	24.2	25.8	6.4	5.4	100
All occupations.....	522	1,004	1,060	1,105	332	136	4,163	12.5	24.1	25.6	26.5	8.0	3.3	100



## INDUSTRIAL RELATIONS.

### British Railway Wages.<sup>1</sup>

By N. C. ADAMS.

**T**HE industrial situation in England was appreciably eased on January 15 by the decision of the railwaymen's representatives to accept the Government's proposals for the fixing of standard railway wages. Negotiations regarding standardization of wages began in March, 1919,<sup>2</sup> came to an abrupt halt at the time of the strike<sup>3</sup> in September, and were resumed vigorously in October at the cessation of the strike in accordance with the terms of settlement.<sup>4</sup> Although the Government's proposals do not by any means concede the full demands of the railwaymen, it is probable that the decision of the delegates of the National Union of Railwaymen will be ratified by the branches, as Mr. J. H. Thomas, the general secretary, and the other leaders have strenuously advised the acceptance of the present offers as being far and away better than anything yet proposed and promising to result ultimately in an approximation to the full demands.

The Government has had a highly technical and difficult task in endeavoring properly to grade railway employees, to standardize rates of pay by grades, and to fix a sliding scale dependent upon the cost of living, subject, however, to the underlying principle that standard wages are to be substantially increased over prewar rates, whatever the cost of living may be.

#### Course of the Negotiations.

**R**AILWAYMEN as a class derived scant satisfaction from the strike settlement, because of its indeterminate character. Rumors of uneasiness and of further strikes have been recurrent, therefore, since October. Officials of the Government and of the railwaymen's unions have fully recognized this state of mind and apparently have made strenuous effort to reach an early as well as an equitable settlement as to wages.

The Government through the minister of transport (Sir Eric Geddes) submitted various offers to the railwaymen's executive committee which were deliberated upon but not accepted. The Railway Review<sup>4</sup> of December 19, 1919, announced that the execu-

<sup>1</sup> The following publications have been consulted: London Times, Observer, Daily Herald, and Railway Review, and Manchester Guardian.

<sup>2</sup> See MONTHLY LABOR REVIEW, June, 1919, pp. 169-177.

<sup>3</sup> See MONTHLY LABOR REVIEW, December, 1919, pp. 116-127.

<sup>4</sup> Official organ of the National Union of Railwaymen.

tive committee had received further offers from the Government which in "principle" were a departure from the "national program" (straight upwards standardization) yet "might ultimately provide a basis for settlement." The executive committee, therefore, had decided to send a delegation to interview the Government again, "with a view to obtaining an improvement on the offer to the full extent to which they (the Government) are prepared to go, so that the full terms of the offer may be submitted to a special general meeting." The representatives were instructed to make it plain to the Government that the executive committee was not in a position to accept the "principle" of the new offers, but that their function would be limited to placing it before a delegate meeting (special general meeting) with a recommendation for its acceptance or otherwise.

Finally on January 4 the Government's offers were made known at meetings of railwaymen held in several important centers, but at nearly every meeting the offers were voted unsatisfactory. The Government proposed an immediate and retroactive increase of 5s.<sup>1</sup> per week thus increasing the stabilized minimum of the October agreement from 51s. to 56s. up to September 30, 1920, but after that date standardization in any grade was to be based upon the average rather than upon the highest rates and the guaranteed minimum in a few grades might fall to 40s. which is considerably below what the railwaymen consider a "living wage."

On January 9 the delegate conference, after three days of discussion, rejected the terms offered but remained in being to await a reply to some modifying proposals of the railwaymen. Finally on January 15 the conference by a "very narrow" majority accepted the Government's amended offer, as representing the best terms obtainable at present.

The conference returned six objections to the original offer:

1. The standard wage rates are based on the average, not the highest prewar rate in each grade. (The Government adhered to the average.)
2. The sliding scale based on the cost of living is unacceptable. (The Government considered the scale essential.)
3. Certain grades are not included. (The Government extended the 5s. advance in the war wage to all grades now receiving the war wage.)
4. Hardship would result in individual cases. (The Government agreed to deal with these cases.)
5. Any increase resulting should be retroactive as from August, 1919. (The Government agreed to grant this if the men prefer it to the offer of a general lump-sum payment of £1.)
6. The Irish railways should be included. (The Government agreed to include the Irish railways.)

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<sup>1</sup> Normally, the par value of the shilling is 24.3 cents; of the pound sterling, \$4.8665.

It appears that the Government has agreed to a certain measure of elasticity in the detailed application of its proposals, while standing firm on principles. Whether the new terms are equitable or not this policy of the Government may have an alleviating effect. The indecision of the last year has had a disturbing effect upon industry in general, and while the public, having in mind the comparative ease with which the country "carried on" during the recent railway strike, has of late shown little concern, there is ample evidence that the rank and file of the railwaymen had become more and more disinclined to accept anything less than the full terms of their demand for standardization upwards. The railwaymen's leaders have advised the men to accept the Government's offer.

#### Summary of the Government's Offer.

**T**HE Government's offers as accepted may be summarized as follows:

The average weekly rate on 15 of the largest railway companies has been taken for each grade or group of grades, and the war bonus (33s.), plus an additional 5s., added to make the new abnormal rate which will remain in existence until the end of September, 1920.

A sliding scale is to be instituted after September, 1920. Taking the present cost of living at 125 per cent above normal a rise or fall of five full points will carry an increase or decrease, as the case may be, of 1s. in the new rate of pay. The position is to be considered every three months after September, 1920, by the central wages board.<sup>1</sup>

The normal (i. e., standard) rate of pay in each grade is to be the average as described above, plus a minimum of 100 per cent. These "normal rates" form the "stop" for the sliding scale; that is, in each grade no reduction will be made below the "stop" no matter how low the cost of living may fall. The lowest "stop" is 40s., for porters (class 2) outside London; porters, goods depot, class 2 stations; laborers, telegraph department; crossing keepers, and rural permanent-way undermen. The highest "stop" is 75s. for yard foremen (class 1).

A large number of grades have been eliminated, with the result that there will be only 88 grades in place of the 512 now existing in the departments so far dealt with.

A lump sum of £1 is to be paid each man in the grades under consideration in place of making any increase, resulting from the new terms, retroactive to August, 1919, when the drivers' and firemen's wages were standardized.

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<sup>1</sup> See page 21.



## Analysis of the New Terms.

**B**EFORE the September strike the Government offered to stabilize wages at their present level to the end of March, 1920, only, but by the terms of the strike settlement the period was extended through September, 1920. Now by the new terms a more real improvement has been secured by the railwaymen in the shape of an extra 5s. per week added to the war bonus, to last at least until September 30.

The sliding-scale system, which is to operate after September, is at least definite and in that respect much more favorable than the one proposed during the strike; also the positive assurance is given of a reviewing of the position every three months.

Before the strike the Government offered standardization at an average of 100 per cent above the prewar rate in each grade, but in the new offer 100 per cent is called a "minimum increase" and so far as the actual wages have been published it is exceeded in every case. Taking porters as an illustration, they are to be placed in three categories, the averages working out at 18s., 20s., and 22s., so that, with the enhanced war bonus added, wages will be 56s., 58s., and 60s., respectively, until September 30, when the sliding scale becomes operative. But the "stops" arranged are 40s., 42s., and 46s., respectively, which are 122 per cent, 110 per cent, and 109 per cent, respectively, above the prewar averages. When one considers the additional 5s. and the fact that there is a dubious prospect of the cost of living decreasing sufficiently to bring the rate of any grade down to the so-called "normal rate," it is apparent that the railwaymen have made a very considerable gain. Indeed, these new terms, taken in conjunction with the eight-hour day and the new arrangements for overtime and Sunday work, granted last year,<sup>1</sup> mark an advance for railway men that would have been thought beyond the bounds of possibility a very short time ago.

The unavoidable complications and delays involved in ascertaining the amounts due each man to whom increases result from the new terms, back to the time when the drivers' standard wages came into force, August, 1919, probably will cause the men to accept instead the lump-sum immediate payment of £1.

The real cause of dissatisfaction with the new offer seems to be the proposed "average" basis of the new terms in place of the "highest rate" basis demanded. But this dissatisfaction is assuaged by the Government having agreed that there shall be no reduction for those now getting prewar rates above the average, other than those reductions after September resulting from the operation of the sliding scale. This agreement should prevent cases of individual hard-

<sup>1</sup> See MONTHLY LABOR REVIEW, June, 1919, p. 176.

ship from arising, and in any event the new wages machinery already provided for<sup>1</sup> should be able to ascertain facts regarding any case and make proper adjustments. With all these advances and improvements, however, the fact remains that there are grades in which it is possible that wages may be reduced to only 40s. per week.

### Details of the Government's Offer.

**R**ATES of pay to adults in the various grades, as they stand with the newly added 5s. bonus, in force at least up to the end of September, and the standard rates, or "stops," to which employees may be reduced after September, by the application of the sliding scale, are given in the statement following. These on their face present some startling possible reductions which, if ever effected, might easily prove a disturbing factor. The possible reductions range from 18s. per week for permanent-way undermen in rural districts to 4s. per week for yard foremen (class 1). As before stated there is little chance of their taking place.

#### WEEKLY RATES OF PAY TO ADULT STAFF.<sup>2</sup>

##### *Traffic staff.*

[Normal par value of shilling is 24.3 cents.]

Grade.	Present rate. <sup>3</sup>	Standard rate or "stop."
	<i>Shillings.</i>	<i>Shillings.</i>
Porters, grade 1.....	60	46
Porters, grade 2:		
London.....	58	42
Other places.....	55	40
Crossing keepers.....	56	40
Leading porters:		
London.....	60	45
Other places.....	58	43
Point cleaners and station-lamp men.....	59	43
District relief porters.....	59	48
Signal-lamp men.....	60	46
Horse and carriage porters.....	60	48
Letter sorters.....	60	48
Cloakroom and lost property office attendants:		
Head.....	65	58
Other.....	61	52
Parcel porters:		
Head.....	63	56
Other.....	61	50
Ticket collectors:		
Class 1.....	65	58
Class 2.....	61	54
Excess luggage collectors:		
Class 1.....	65	58
Class 2.....	61	54
Train ticket collectors.....	65	60
Train attendants.....	61	50
Gatemen and ticket collectors on rail, motor, or electric trains who are not in charge of trains.....	61	50
Bill posters.....	61	50
Guards, passenger and goods:		
First and second years.....	60	50
Third and fourth years.....	63	55
Fifth, sixth, and seventh years.....	66	60
Eighth year.....	69	65

<sup>1</sup> See page 24.

<sup>2</sup> Railway Review (London), January 16, 1920.

<sup>3</sup> In effect until Sept. 30, 1920, then subject to sliding scale.

## WEEKLY RATES OF PAY TO ADULT STAFF—Continued.

• *Traffic staff*—Concluded.

Grade.	Present rate. <sup>1</sup>	Standard rate or "stop."
	<i>Shillings.</i>	<i>Shillings.</i>
Shunters, passenger and goods:		
Class 1.....	69	65
Class 2.....	66	60
Class 3.....	63	55
Class 4.....	60	50
Station foremen:		
Class 1.....	70	65
Class 2.....	63	58
Parcel foremen:		
Class 1.....	75	66
Class 2.....	71	60
Foremen, ticket collectors:		
Class 1.....	72	65
Class 2.....	68	61
Yard foremen:		
Class 1.....	79	75
Class 2.....	76	70

*Goods and cartage staff.*

	<i>Goods depot.</i>		
Porters, etc.:			
Class 2 stations.....	57	40	
Class 1 stations.....	60	44	
London.....	61	47	
Callers-off, etc.:			
Class 2 stations.....	60	43	
Class 1 stations.....	62	49	
London.....	63	52	
Checkers, etc.:			
Class 2 stations.....	62	47	
Class 1 stations.....	64	54	
London.....	66	57	
Working foremen, etc.:			
Class 2 stations.....	65	52	
Class 1 stations.....	68	59	
London.....	71	62	
	<i>Cartage.</i>		
Carters, etc.:			
Class 2 stations.....	60	46	
Class 1 stations.....	62	50	
London.....	64	53	
Carters, head:			
Class 2 stations.....	61	49	
Class 1 stations.....	64	54	
London.....	66	57	
Motor drivers:			
Petrol or steam—			
Class 1 stations.....	67	57	
London.....	68	60	
Electric—			
Class 1 stations.....	66	53	
London.....	67	56	
Working foremen—horsekeepers, stablemen (in charge):			
Class 2 stations.....	65	52	
Class 1 stations.....	68	59	
London.....	71	62	

<sup>1</sup> In effect until Sept. 30, 1920, then subject to sliding scale.



## MONTHLY LABOR REVIEW.

## WEEKLY RATES OF PAY TO ADULT STAFF—Continued.

*Permanent-way staff.*

Grade.	Area.	Present rate. <sup>1</sup>	Standard rate or "stop."
		<i>Shillings.</i>	<i>Shillings.</i>
Gangers.....	Rural.....	63	48
	Industrial, etc. <sup>2</sup> .....	65	52
	London <sup>3</sup> .....	69	60
	London termini.....	72	65
Subgangers.....	Rural.....	60	43
	Industrial, etc. <sup>2</sup> .....	62	46
	London <sup>3</sup> .....	65	52
	London termini.....	66	55
Undermen.....	Rural.....	58	40
	Industrial, etc. <sup>2</sup> .....	60	44
	London <sup>3</sup> .....	62	48
	London termini.....	63	50

*Shed staff—locomotive department.*

Steam raisers.....			
Fire lighters.....			
Coal men.....			
Fire droppers.....			
Stores issuers.....		62	48
Toolmen.....			
Boiler washers.....			
Gland packers.....			
Tube cleaners.....		60	45
Shed laborers.....			
Ash fillers.....			
Barmen.....			
Sandmen.....		59	43
Lamp men.....			
Lamp trimmers.....			
Callers-up (adult).....			

*Carriage and wagon department staff.*

Carriage examiners.....			
Wagon examiners.....	London <sup>3</sup> .....	67	60
Brake examiners.....	Province <sup>3</sup> .....	65	56
Brake adjusters.....			
Oil-gas makers.....	London <sup>3</sup> .....	67	58
	Provinces.....	65	56
	London <sup>3</sup> .....	63	50
	Provinces.....	61	47
Oil-gas makers' assistants and firemen.....			
Carriage-lamp men.....			
Carriage lights.....	London <sup>3</sup> .....	62	47
Globe cleaners.....	Provinces.....	59	45
Oil-gas fillers.....			
Carriage cleaners.....			
Brassers.....			
Carriage washers.....	London <sup>3</sup> .....	60	44
Carriage and wagon oilers and greasers.....	Provinces.....	58	42
Axle-box cleaners.....			

<sup>1</sup> In effect until Sept. 30, 1920, then subject to sliding scale.<sup>2</sup> Industrial and mining areas and large towns and important ports and health resorts.<sup>3</sup> As far out as 10 miles from Charing Cross.

## WEEKLY RATES OF PAY TO ADULT STAFF—Concluded.

*Signal and telegraph staff.*

Grade.	Area.	Present rate. <sup>1</sup>	Standard rate or "stop." <sup>2</sup>
Chief linemen.....	Rural.....	78	60
	Industrial, etc. <sup>2</sup> .....	79	65
	London <sup>3</sup> .....	79	70
Linemen.....	Rural.....	69	57
	Industrial, etc. <sup>2</sup> .....	70	62
	London <sup>3</sup> .....	72	65
Linemen's assistants.....	Rural.....	63	50
	Industrial, etc. <sup>2</sup> .....	64	54
	London <sup>3</sup> .....	65	58
Storesmen.....	Rural.....	65	55
	Industrial, etc. <sup>2</sup> .....	65	57
	London <sup>3</sup> .....	65	57
Electric locking installers, signal locking fitters, signal fixers.....	Rural.....	70	59
	Industrial, etc. <sup>2</sup> .....	71	64
	London <sup>3</sup> .....	73	67
Gangers.....	Rural.....	69	57
	Industrial, etc. <sup>2</sup> .....	73	62
	London <sup>3</sup> .....	75	65
Gangers' assistants.....	Rural.....	63	54
	Industrial, etc. <sup>2</sup> .....	65	59
	London <sup>3</sup> .....	68	62
Wiremen (telegraph).....	Rural.....	64	50
	Industrial, etc. <sup>2</sup> .....	65	54
	London <sup>3</sup> .....	66	58
Laborers.....	Rural.....	58	40
	Industrial, etc. <sup>2</sup> .....	60	44
	London <sup>3</sup> .....	62	48

<sup>1</sup> In effect until Sept. 30, 1920, then subject to sliding scale.<sup>2</sup> Industrial and mining areas and large towns and important ports and health resorts.<sup>3</sup> As far out as 10 miles from Charing Cross.

It is reported that before these terms were accepted by the delegate conference a resolution to refer the matter to the Triple Alliance<sup>1</sup> was introduced but not carried. The transport workers are engaged upon the dockers' demand for a 16s. raise, while the miners are occupied with their nationalization campaign, and at present neither body can afford to drop its own interests to assist the railwaymen. Moreover, it is not likely that the three unions would strike because of the slight differences at present existing between the railwaymen's demands and the Government's offers.

## Proposed Participation in Management by Employees.

**I**N THE meantime there is a new phase of the railwaymen's situation to be considered. On November 16 Mr. Thomas, addressing a meeting of railwaymen at Bristol, announced that the Government proposed to give railwaymen a share in control of the railways by creating the following machinery:

Three union representatives to join the Railway Executive, with coequal powers to the general managers; a joint board, composed of five general managers and five representatives of the unions, to deal with conditions of service; a body of 12 (4 from the men, 4 from the railway companies, and 4 from the public, with an independent chairman) to which will be referred questions on which the joint board fails to agree; bodies set up locally (with an equal number of both management and men) to deal with grievances.

<sup>1</sup> See MONTHLY LABOR REVIEW, June, 1919, pp. 169-177.

The full significance of these new concessions is not yet known and on their face it does not seem that the railwaymen are actually gaining any real share in control. The outstanding fact, however, is that the Government has given full "recognition" to the railway unions, and it should be recalled that the strike of 1911 was virtually for that very object. At that time a reluctant recognition was granted, but this new offer to place union representatives on boards hitherto reserved for general managers of the railways is apparently entirely voluntary on the part of the Government. This is a very long step indeed for the railwaymen to have advanced in a little more than eight years.

Mr. Thomas's first announcement was somewhat vague in that the "railway executive," as such, was, in accordance with the Transport Act of 1919, to cease to exist January 1, 1920, and the new body has now been announced by Sir Eric Geddes as the "railway advisory committee," and includes in its personnel four union officials together with 12 railway officials. No promise has been made as to the extent to which the Ministry of Transport will act upon the advice of this committee. The four union representatives are Mr. Thomas, Mr. C. T. Cramp, industrial secretary of the National Union of Railwaymen, Mr. Bromely, secretary of the Locomotive Engineers, and Mr. A. G. Walkden, secretary of the Railway Clerks' Association, who has not been identified with labor politics, but is devoted to the administrative work of trade-unionism. These men are among the ablest of the railway unions' representatives and may be depended upon to gain for the railwaymen all the voice in control possible in the existing conditions, i. e., an advisory committee with a definite minority representation of the railwaymen, and the retention of all executive functions by the Ministry of Transport.

The joint board (five general managers and five railwaymen) to deal with conditions of service has been named the "Central wages board," and the final court (four from the railway companies, four from the employees, and four from the public, with an independent chairman) is to be known as the "National wages board." Of the four public representatives, one is to be nominated by the parliamentary committee of the Trade-Union Congress, one by the Cooperative Union, one by the Federation of British Industries, and one by the Associated Chambers of Commerce.

#### Modification of "Right to Strike."

SIR Eric Geddes, speaking in the House of Commons on December 9, said that the railway unions had agreed that no strike should take place until one month after the question in dispute had been referred to the National wages board. This statement would seem



to indicate that the railway unions have definitely accepted the Government's proposition in respect to these three bodies. Still, as long as the standardization negotiations remain unsettled, there is no likelihood of the wages boards functioning, as the offer specifically states that they shall not take up any questions now being negotiated. This would seem to indicate that the wages boards will not be set up till standardization has been definitely accomplished.

This renouncement of the privilege of the instantaneous strike is important. During the 1911 strike the great inconvenience suffered by the public acted as a lever to bring an early victory to the railwaymen; but in 1919 the use of motor transport so eased the situation that the strike may no longer be regarded as an irresistible weapon of the railwaymen.

Trade-unionists as a rule are averse to compulsory arbitration or to any limitation of the right to strike, hence it is not clear that the leaders, who have apparently agreed to the one month postponement, will have an easy task in obtaining the adherence of their members to this provision.

The advisory committee will, it is supposed, terminate as such in August, 1921, when, according to the Ministry of Transport Act, Government control of the railways will cease. The minister has authority, however, to increase rates, which will remain in force, if necessary, for a year and a half after the date specified, and previous compensation provisions to protect the shareholders will remain unassailed. According to the arrangement between the companies and the State, the railways must be returned to their proprietors "unimpaired in net revenue earning capacity." It is little wonder, therefore, that the Government has made a great effort to stick to its original offers, which were supposed to be all the railways could endure. The central and national wages boards, if they prove successfully workable, are likely to be continued, although their composition may be changed. From information at present available it is not known just at what point the central wages board will begin its duties and whether the adjustment of anomalies resulting from the standardization scheme will fall to its lot.

## PRICES AND COST OF LIVING.

### Retail Prices of Food and Coal in the United States.

**R**ETAIL prices of food are secured by the Bureau of Labor Statistics from retail dealers in 50 cities through monthly reports of actual selling prices on the 15th of each month. These reports represent many thousands of sales to housewives in each of the 50 cities. Prices of 43 food articles<sup>1</sup> are now reported monthly by retail dealers, and prices of storage eggs are secured in January, February, October, November, and December. Quotations are secured on similar grades of commodities in all cities. There are, however, some local differences which must be taken into consideration when any comparison is made of the prices in the different cities.

1. The cut of beef known as "sirloin" in Boston, Mass.; Manchester, N. H.; Philadelphia, Pa.; and Providence, R. I., would be known as "porterhouse" in other cities. In these four cities, owing to the method of dividing the round from the loin, there is no cut that corresponds to "sirloin" in other cities. There is also a greater amount of trimming demanded by the trade in these cities than in others. This is particularly true of Providence, R. I.

2. In Boston, Mass.; Fall River, Mass.; Manchester, N. H.; New Haven, Conn.; Portland, Me.; and Providence, R. I., very little fresh plate beef is sold, and prices are not secured from these cities for this article.

3. The most of the sales in Newark, N. J., are on whole ham instead of the sliced, as in other cities.

There are also other local factors which should be taken into consideration. The cities for which prices are shown are widely separated; some are in localities near the source of supply while others are a greater distance from it, making it necessary to add to the prices a greater amount for transportation. Methods and costs of doing business vary greatly in different localities, due to the demands of customers, and to rentals, wages, and other fixed charges or expenses.

In addition to food prices, the following retail prices are secured from each of the 50 cities listed on page 38:

<sup>1</sup> Retail prices for the following 23 food articles have been secured each month since January, 1913: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, lamb, lard, hens, flour, corn meal, eggs, butter, milk, bread, potatoes, sugar, cheese, rice, coffee, and tea.

In addition to these 23 articles, monthly prices have been secured for the following 5 articles since January, 1915: Canned salmon, navy beans, onions, prunes, and raisins.

Monthly retail prices have been secured since January, 1919, for the following 15 articles: Evaporated milk, oleomargarine, nut margarine, Crisco, rolled oats, corn flakes, Cream of Wheat, macaroni, cabbage, baked beans, canned corn, canned peas, canned tomatoes, bananas, and oranges.

Prices for storage eggs have been secured for January, February, November, and December only of each year including 1919, when prices were also secured for October.

(a) Prices of coal are secured semiannually, and published in the March and September issues of the MONTHLY LABOR REVIEW.

(b) Prices of gas are secured annually and published in the June issue of the MONTHLY LABOR REVIEW.

(c) Prices of dry goods are secured quarterly and published in the April, July, October, and December issues of the MONTHLY LABOR REVIEW.

Retail prices of food for January 15, 1920, show that the cost of 22 articles of food was 2 per cent higher than in December 15, 1919, 9 per cent higher than in January, 1919, and 104 per cent higher than in January, 1913. These comparisons are based on actual retail prices of 22 of the most essential foods,<sup>1</sup> weighted according to the consumption of the average family.

During the month from December 15, 1919, to January 15, 1920, 29 of the 44 articles of food for which prices were secured in 1919 increased as follows: Cabbage, 33 per cent; potatoes, 26 per cent; granulated sugar, 23 per cent; onions, 11 per cent; lamb and rolled oats, 8 per cent each; hens, 7 per cent; plate beef, 6 per cent; flour, 5 per cent; sirloin steak, rib roast, chuck roast, bread, and Cream of Wheat, 4 per cent each; round steak and raisins, 3 per cent each; canned salmon and rice, 2 per cent each; ham, evaporated milk, macaroni, baked beans, tea, coffee, and bananas, 1 per cent each. Bacon, nut margarine, cheese, and Crisco increased less than five-tenths of 1 per cent each.

The 11 articles which decreased in price were: Strictly fresh eggs, 8 per cent; butter, 5 per cent; lard and canned tomatoes, 3 per cent each; pork chops, storage eggs, and oranges, 2 per cent each; fresh milk, canned corn, canned peas, and prunes, 1 per cent each.

Oleomargarine, corn meal, corn flakes, and navy beans were the same in price as in December, 1919.

During the year period, January, 1919, to January, 1920, 25 of the 44 articles for which prices were secured on both dates increased as follows: Onions, 120 per cent; cabbage, 98 per cent; potatoes, 69 per cent; granulated sugar, 65 per cent; raisins, 53 per cent; prunes, 47 per cent; coffee, 41 per cent; rice, 31 per cent; flour, 23 per cent; rolled oats, 18 per cent; canned salmon, 16 per cent; Crisco, 13 per cent; Cream of Wheat and bananas, 11 per cent each; oleomargarine and strictly fresh eggs, 10 per cent each; bread, 8 per cent; fresh milk and corn meal, 6 per cent each; hens and butter, 5 per cent each; evaporated milk and storage eggs, 4 per cent each; lard and macaroni, 2 per cent each; and lamb and tea, 1 per cent each.

Articles which decreased in price during the year were: Navy beans, 18 per cent; plate beef, 16 per cent; bacon, 14 per cent; canned tomatoes, 11 per cent; chuck roast and baked beans, 10 per cent each; pork

<sup>1</sup> See first paragraph of footnote on p. 26. This comparison is based on all the articles for which prices have been secured each month since 1913, weighted according to the consumption of the average family. Lamb, for which the Bureau has no consumption figures, is not included in this comparison.



chops, 8 per cent; ham and canned corn, 6 per cent each; round steak, 5 per cent; rib roast, 4 per cent; cheese and canned peas, 2 per cent each; and sirloin steak, nut margarine, and oranges, 1 per cent each. The price of corn flakes was the same as in January, 1919.

TABLE 1.—AVERAGE RETAIL PRICES AND PER CENT OF INCREASE OR DECREASE JANUARY 15, 1920, COMPARED WITH JANUARY 15, 1919, AND DECEMBER 15, 1919.

Article.	Unit.	Average retail price.			Per cent of increase (+) or decrease (−) Jan. 15, 1920, compared with—	
		Jan. 15, 1919.	Dec. 15, 1919.	Jan. 15, 1920.	Jan. 15, 1919.	Dec. 15, 1919.
		<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>		
Sirloin steak.....	Pound.....	41.1	39.1	40.5	− 1	+ 4
Round steak.....	do.....	39.0	35.9	37.0	− 5	+ 3
Rib roast.....	do.....	32.6	30.3	31.4	− 4	+ 4
Chuck roast.....	do.....	28.0	24.3	25.3	− 10	+ 4
Plate beef.....	do.....	21.9	17.3	18.4	− 16	+ 6
Pork chops.....	do.....	40.6	38.1	37.3	− 8	− 2
Bacon.....	do.....	58.5	50.3	50.4	− 14	( <sup>1</sup> )
Ham.....	do.....	53.6	49.9	50.3	− 6	+ 1
Lamb.....	do.....	36.1	33.6	36.4	+ 1	+ 8
Hens.....	do.....	40.0	39.1	42.0	+ 5	+ 7
Salmon, canned.....	do.....	32.1	36.4	37.1	+ 16	+ 2
Milk, fresh.....	Quart.....	15.6	16.7	16.6	+ 6	− 1
Milk, evaporated (unsweetened).....	15-16-oz. can.....	16.3	16.9	17.0	+ 4	+ 1
Butter.....	Pound.....	70.5	78.0	74.2	+ 5	− 5
Oleomargarine.....	do.....	39.6	43.4	43.4	+ 10	( <sup>2</sup> )
Nut margarine.....	do.....	36.4	35.8	35.9	− 1	( <sup>1</sup> )
Cheese.....	do.....	44.5	43.3	43.4	− 2	( <sup>1</sup> )
Lard.....	do.....	33.4	34.9	34.0	+ 2	− 3
Crisco.....	do.....	33.5	37.7	37.8	+ 13	( <sup>1</sup> )
Eggs, strictly fresh.....	Dozen.....	75.2	90.1	82.7	+ 10	− 8
Eggs, storage.....	do.....	59.9	63.5	62.5	+ 4	− 2
Bread.....	Pound <sup>3</sup> .....	9.8	10.2	10.6	+ 8	+ 4
Flour.....	Pound.....	6.6	7.7	8.1	+ 23	+ 5
Corn meal.....	do.....	6.2	6.6	6.6	+ 6	( <sup>2</sup> )
Rolled oats.....	do.....	8.4	9.2	9.9	+ 18	+ 8
Corn flakes.....	8-oz. pkg.....	14.1	14.1	14.1	( <sup>2</sup> )	( <sup>2</sup> )
Cream of Wheat.....	28-oz. pkg.....	25.9	27.6	28.8	+ 11	+ 4
Macaroni.....	Pound.....	19.5	19.8	19.9	+ 2	+ 1
Rice.....	do.....	13.8	17.7	18.1	+ 31	+ 2
Beans, navy.....	do.....	14.9	12.2	12.2	− 18	( <sup>2</sup> )
Potatoes.....	do.....	3.2	4.3	5.4	+ 69	+26
Onions.....	do.....	4.1	8.1	9.0	+120	+11
Cabbage.....	do.....	4.1	6.1	8.1	+ 98	+33
Beans, baked.....	No. 2 can.....	19.1	17.0	17.1	− 10	+ 1
Corn, canned.....	do.....	20.0	18.9	18.8	− 6	− 1
Peas, canned.....	do.....	19.3	19.2	19.0	− 2	− 1
Tomatoes, canned.....	do.....	17.6	16.1	15.6	− 11	− 3
Sugar, granulated.....	Pound.....	10.8	14.5	17.8	+ 65	+23
Tea.....	do.....	69.2	69.3	70.1	+ 1	+ 1
Coffee.....	do.....	35.0	48.9	49.2	+ 41	+ 1
Prunes.....	do.....	19.8	29.3	29.1	+ 47	− 1
Raisins.....	do.....	16.1	23.9	24.7	+ 53	+ 3
Bananas.....	Dozen.....	37.0	40.4	40.9	+ 11	+ 1
Oranges.....	do.....	51.5	52.0	51.0	− 1	− 2
22 weighted articles <sup>4</sup> .....					+ 9	+ 2

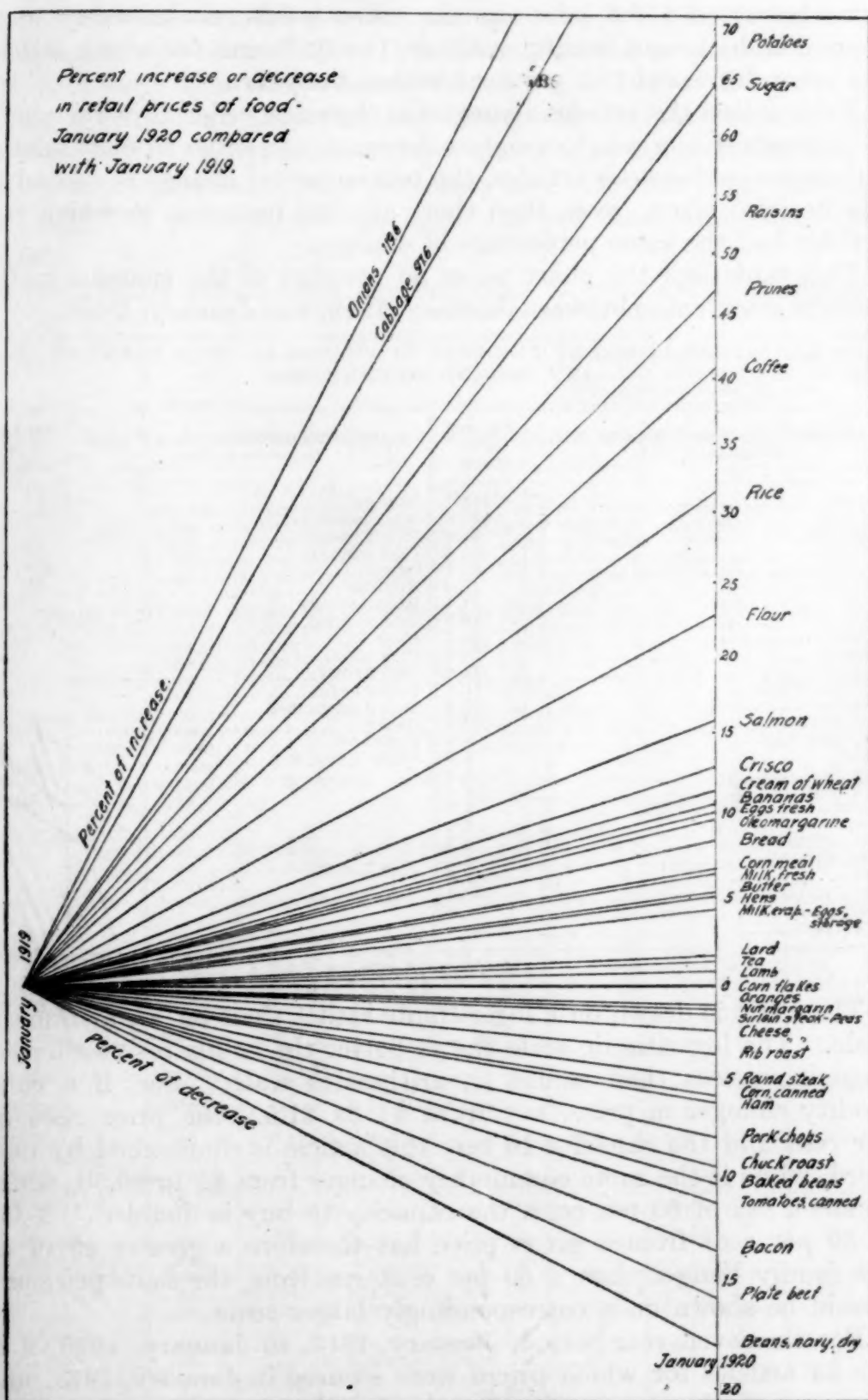
<sup>1</sup> Increase of less than five-tenths of 1 per cent.

<sup>2</sup> No change in price.

<sup>3</sup> Baked weight.

<sup>4</sup> See first paragraph of footnote on p. 26; lamb is not included.

To show more clearly the extent of the change in the price of each article within the last year, the chart on page 29 has been prepared in which the articles are arranged in the order of per cent of change in the year interval, beginning with onions, for which the



price increased 119.6 per cent (in other words, considerably more than doubled), and ending with dry navy beans, for which article, the price decreased 18.1 per cent within the year.

Table 2 lists the articles arranged in the same order as in the chart, from greatest increase to greatest decrease. In order to show minute differences as between articles, the percentage of change is carried to one decimal place; even then there are two instances in which two articles had the same percentage of change.

This table and the chart takes no account of the changes in the months intervening between January, 1919, and January, 1920.

TABLE 2.—ARTICLES LISTED BY PER CENT OF CHANGE IN PRICE BETWEEN JANUARY, 1919, AND JANUARY, 1920.

Articles that increased January, 1919, to January, 1920.	Per cent of in- crease.	Articles that decreased January, 1919, to January, 1920.	Per cent of de- crease.
Onions.....	119.6	Oranges.....	1.0
Cabbage.....	97.6	Nut margarine.....	1.4
Potatoes.....	68.8	Sirloin steak.....	1.5
Sugar.....	64.8	Peas, canned.....	1.5
Raisins.....	53.4	Cheese.....	2.5
Prunes.....	47.0	Rib roast.....	3.7
Coffee.....	40.6	Round steak.....	5.1
Rice.....	31.2	Corn, canned.....	6.0
Flour.....	22.7	Ham.....	6.2
Salmon.....	15.6	Pork chops.....	8.1
Crisco.....	12.8	Chuck roast.....	9.6
Cream of Wheat.....	11.2	Baked beans.....	10.5
Bananas.....	10.5	Tomatoes, canned.....	11.4
Eggs, fresh.....	10.0	Bacon.....	13.8
Oleomargarine.....	9.6	Plate beef.....	16.0
Bread.....	8.2	Beans, navy, dry.....	18.1
Corn meal.....	6.5		
Milk, fresh.....	6.4		
Butter.....	5.2		
Hens.....	5.0		
Milk, evaporated.....	4.3		
Eggs, storage.....	4.3		
Lard.....	1.8		
Tea.....	1.3		
Lamb.....	.8		
Corn flakes.....	( <sup>1</sup> )		

<sup>1</sup> No change in price.

The chart is drawn on a logarithmic rather than on an arithmetic scale. The logarithmic scale shows better the comparative effect of changing prices than would an arithmetic scale.<sup>1</sup> For, if a commodity changes in price, say from \$1 to \$1.50, the price rises 50 per cent and the capacity to buy this article is diminished by one-third, while if the same commodity changes from \$1 to \$0.50, which means a fall of 50 per cent, the capacity to buy is doubled. A fall of 50 per cent from a given price has therefore a greater effect on the family budget than a 50 per cent rise from the same price and should be shown on a correspondingly larger scale.

For the seven-year period, January, 1913, to January, 1920, 2 of the 24 articles for which prices were secured in January, 1913, and upon which this comparison can be based, increased over 200 per

<sup>1</sup> For discussion of the logarithmic chart, see article on "Comparison of arithmetic and ratio charts," by Lucien W. Chaney, MONTHLY LABOR REVIEW for March, 1919, pp. 20-34. Also, The "Ratio" Chart, by Prof. Irving Fisher, reprinted from Quarterly Publications of the American Statistical Association, June, 1917, 24 pages.



cent. Potatoes were 238 per cent and granulated sugar 207 per cent higher than in January, 1913. This means that the price in January, 1920, was more than three times what it was in 1913. The price of 9 other articles more than doubled during this period. Pork chops increased 101 per cent; lamb, 102 per cent; hens, 107 per cent; rice, 110 per cent; corn meal, 120 per cent; lard, 121 per cent; strictly fresh eggs, 123 per cent; storage eggs, 143 per cent; and flour, 145 per cent.

TABLE 3.—AVERAGE RETAIL PRICE AND PER CENT OF INCREASE OR DECREASE JANUARY 15, OF EACH SPECIFIED YEAR COMPARED WITH JANUARY 15, 1913.

Article.	Unit.	Average retail price, Jan. 15—								Per cent of increase (+) or decrease (—), Jan. 15 of each specified year compared with Jan. 15, 1913.							
		1913	1914	1915	1916	1917	1918	1919	1920	1914	1915	1916	1917	1918	1919	1920	
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.								
Sirloin steak.....	Pound..	23.8	25.1	25.4	25.7	27.6	32.7	41.1	40.5	+ 5	+ 7	+ 8	+ 16	+ 37	+ 73	+ 70	
Round steak.....	do.....	20.6	22.8	22.8	22.8	24.7	30.6	39.0	37.0	+11	+11	+11	+ 20	+ 49	+ 89	+ 68	
Rib roast.....	do.....	18.7	19.7	19.9	19.9	21.6	25.8	32.6	31.4	+ 5	+ 6	+ 8	+ 16	+ 38	+ 74	+ 68	
Chuck roast.....	do.....	14.9	16.9	16.3	16.2	17.4	22.1	28.0	25.3	+13	+ 9	+ 9	+ 17	+ 48	+ 88	+ 70	
Plate beef.....	do.....	11.0	12.3	12.4	12.0	13.2	17.2	21.9	18.4	+12	+13	+ 9	+ 20	+ 56	+ 99	+ 67	
Pork chops.....	do.....	18.6	20.7	18.6	18.6	23.6	34.3	40.6	37.3	+11	(1)	(1)	+ 27	+ 84	+118	+101	
Bacon.....	do.....	25.5	26.4	27.3	27.3	29.6	48.6	58.5	50.4	+ 4	+ 7	+ 7	+ 16	+ 91	+129	+ 98	
Ham.....	do.....	25.3	26.5	26.5	29.4	30.6	43.6	53.6	50.3	+ 5	+ 5	+16	+ 21	+ 72	+112	+ 99	
Lamb.....	do.....	18.0	18.8	20.6	20.5	23.9	30.8	36.1	36.4	+ 4	+14	+14	+ 33	+ 71	+101	+102	
Hens.....	do.....	20.3	21.2	20.3	21.7	25.5	32.9	40.0	42.0	+ 4	(1)	+ 7	+ 26	+ 62	+ 97	+107	
Salmon, canned.....	do.....			19.8	20.0	21.4	29.2	32.1	37.1								
Milk, fresh.....	Quart..	8.9	9.1	9.0	8.9	9.9	13.4	15.6	16.6	+ 2	+ 1	(1)	+ 11	+ 51	+ 76	+ 87	
Milk, evaporated, unsweetened.	15-16 oz. can.							16.3	17.0								
Butter.....	Pound..	41.0	39.8	38.6	38.2	45.3	56.7	70.5	74.2	- 3	- 6	- 7	+ 10	+ 38	+ 72	+ 81	
Oleomargarine.....	do.....							39.6	43.4								
Nut margarine.....	do.....							36.4	35.9								
Cheese.....	do.....	22.2	22.9	23.2	24.3	31.2	34.5	44.5	43.4	+ 3	+ 5	+ 9	+ 41	+ 55	+100	+ 95	
Lard.....	do.....	15.4	15.8	15.4	17.5	21.4	32.9	33.4	34.0	+ 3	(1)	+14	+ 39	+114	+117	+121	
Crisco.....	do.....							33.5	37.8								
Eggs, strictly fresh..	Dozen..	37.1	43.5	44.3	42.4	54.4	67.4	75.2	82.7	+17	+19	+14	+ 47	+ 82	+103	+123	
Eggs, storage.....	do.....	25.7						59.9	62.5						+134	+143	
Bread.....	Pound <sup>2</sup> .	5.6	6.2	6.8	7.0	7.9	9.3	9.8	10.6	+11	+21	+25	+ 41	+ 66	+ 75	+ 89	
Flour.....	Pound..	3.3	3.2	4.0	3.9	5.6	6.6	6.6	8.1	- 3	+21	+18	+ 70	+100	+100	+145	
Corn meal.....	do.....	3.0	3.1	3.3	3.2	4.0	7.0	6.2	6.6	+ 3	+10	+ 7	+ 33	+133	+107	+120	
Rolled oats.....	do.....							8.4	9.9								
Corn flakes.....	8-oz. pkg							14.1	14.1								
Cream of Wheat.....	28-oz. pkg							25.9	28.8								
Macaroni.....	Pound..							19.5	19.9								
Rice.....	do.....	8.6	8.7	9.1	9.1	9.1	11.7	13.8	18.1	+ 1	+ 6	+ 6	+ 6	+ 36	+ 60	+110	
Beans, navy.....	do.....			7.3	9.1	14.5	18.5	14.9	12.2								
Potatoes.....	do.....	1.6	1.9	1.5	2.4	3.9	3.2	3.2	5.4	+19	- 6	+50	+144	+100	+100	+238	
Onions.....	do.....			3.4	4.1	6.9	5.0	4.1	9.0								
Cabbage.....	do.....							4.1	8.1								
Beans, baked.....	No. 2 can							19.1	17.1								
Corn, canned.....	do.....							20.0	18.8								
Peas, canned.....	do.....							19.3	19.0								
Tomatoes, canned.....	do.....							17.6	15.6								
Sugar, granulated....	Pound..	5.8	5.2	6.0	6.7	8.0	9.5	10.8	17.8	-10	+ 3	+16	+ 38	+ 64	+ 86	+207	
Tea.....	do.....	54.3	54.5	54.6	54.6	54.6	62.3	69.2	70.1	( <sup>3</sup> )	+ 1	+ 1	+ 1	+ 15	+ 27	+ 29	
Coffee.....	do.....	29.9	29.6	29.9	29.9	29.9	30.4	35.0	49.2	- 7	(1)	(1)	(1)	+ 2	+ 17	+ 65	
Prunes.....	do.....			13.7	13.3	13.9	16.4	19.8	29.1								
Raisins.....	do.....			12.5	12.6	14.1	15.0	16.1	24.7								
Bananas.....	Dozen..							37.0	40.9								
Oranges.....	do.....							51.5	51.0								
22 weighted articles <sup>4</sup>										+ 5	+ 5	+ 9	+ 29	+ 62	+ 88	+104	

<sup>1</sup> No change in price.

<sup>2</sup> Baked weight.

<sup>3</sup> Increase of less than five-tenths of 1 per cent.

<sup>4</sup> See first paragraph of footnote on p. 26; lamb is not included.

In Table 4 are given the average prices for each of the 44 articles of food for each month of 1919 and for the years 1913 and 1919. The percentage changes in the prices of each of the articles for which prices were secured in 1913 are shown in Table 6, on page 36. These relative figures show the relation that the price of each article for each month, January, 1913, to January, 1920, bears to the average price of each article in the year 1913.

Table 5 shows for each month of 1919, and for the years 1913 and 1919, the average family expenditure for 22 articles of food<sup>1</sup> weighted according to the consumption of the average family. The percentage changes in these expenditures, as compared with the average expenditure in the year 1913, are shown by the use of relative figures. For example, the average expenditure in the year 1919 is represented by the relative figure 186 when the average expenditure for the year 1913 is taken as the base, or 100. This shows a percentage increase of 86 per cent. These relative figures are also shown in the last column of Table 6.

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<sup>1</sup> See first paragraph of footnote on p. 26; lamb is not included.

TABLE 4.—AVERAGE RETAIL PRICES AND AVERAGE FAMILY EXPENDITURES FOR CERTAIN SPECIFIED ARTICLES OF FOOD FOR THE YEAR 1913, JANUARY TO DECEMBER, 1919, INCLUSIVE, AND FOR THE YEAR 1919.

Article.	Unit.	Year 1913.	1919												Year 1919.
			Jan.	Feb.	Mar.	Apr.	May.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
Sirloin steak.....	Lb.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Round steak.....	Lb.	25.4	41.1	41.2	41.8	43.7	44.4	43.1	43.4	42.1	40.9	39.8	39.3	39.1	41.7
Rib roast.....	Lb.	22.3	39.0	38.8	39.4	40.5	41.6	40.4	40.7	39.5	37.9	36.9	36.2	35.9	38.9
Chuck roast.....	Lb.	19.8	32.6	32.6	33.4	34.6	35.2	33.8	33.5	32.4	31.2	30.6	30.2	30.3	32.5
Plate beef.....	Lb.	16.0	28.0	27.9	28.4	29.4	29.7	28.1	27.7	26.6	25.3	24.5	24.2	24.3	27.0
Pork chops.....	Lb.	13.1	21.9	21.9	22.1	22.6	22.5	21.0	20.3	19.3	18.2	17.6	17.3	17.3	20.2
Bacon, sliced.....	Lb.	21.0	40.6	37.9	38.6	41.4	43.0	42.4	46.2	46.9	46.0	44.3	42.1	38.1	42.3
Ham, sliced.....	Lb.	27.0	58.5	55.3	54.9	57.2	56.7	57.2	58.1	57.7	55.6	52.8	51.0	50.3	55.4
Lamb.....	Lb.	26.9	53.6	51.8	51.4	52.9	54.5	55.2	56.7	56.9	55.2	52.4	50.5	49.9	53.4
Hens.....	Lb.	18.9	36.1	36.4	38.0	39.9	39.6	38.4	38.2	36.4	34.6	33.9	33.4	33.6	36.5
Salmon, canned.....	Lb.	21.3	40.0	39.6	41.1	43.0	43.5	42.6	42.0	41.8	41.4	40.3	39.2	39.1	41.1
Milk, fresh.....	Qt.	.....	32.1	31.7	32.1	32.2	31.9	32.0	32.2	32.3	33.6	34.8	35.7	36.4	33.1
Milk, evaporated (unsweetened).....	(1)	.....	16.3	16.4	15.3	15.0	15.1	15.4	15.9	16.3	16.5	16.6	16.8	16.9	16.0
Butter.....	Lb.	38.3	70.5	57.2	66.5	71.3	67.9	63.3	62.8	64.1	65.7	71.1	75.4	78.0	67.8
Oleomargarine.....	Lb.	.....	39.6	39.2	39.0	39.2	40.4	41.4	41.9	42.5	42.8	42.6	43.0	43.4	41.3
Nut margarine.....	Lb.	.....	36.4	35.9	35.5	35.2	35.3	35.4	35.7	35.8	35.8	35.8	35.8	35.8	35.7
Cheese.....	Lb.	22.1	44.5	40.9	40.5	41.9	42.2	42.4	43.0	43.5	43.0	42.4	43.0	43.3	42.6
Lard.....	Lb.	15.8	33.4	32.1	33.4	35.3	38.8	40.2	42.0	42.0	38.2	36.1	36.5	34.9	36.9
Crisco.....	Lb.	.....	33.5	33.8	33.2	33.4	33.9	35.3	38.9	40.5	39.5	37.5	37.8	37.7	36.3
Eggs, strictly fresh.....	Doz.	34.5	75.2	50.6	48.3	49.3	53.1	53.5	56.6	60.2	63.2	72.0	81.0	90.1	62.8
Eggs, storage.....	Doz.	.....	59.9	59.9	.....	.....	.....	.....	.....	.....	.....	59.2	61.8	63.5	.....
Bread.....	Lb. <sup>2</sup>	5.7	9.8	9.8	9.8	9.8	9.8	9.9	10.0	10.1	10.1	10.1	10.2	10.2	10.0
Flour.....	Lb.	3.3	6.6	6.7	6.8	7.2	7.5	7.5	7.5	7.4	7.3	7.3	7.4	7.7	7.2
Corn meal.....	Lb.	3.0	6.2	6.0	5.9	6.0	6.2	6.3	6.5	6.6	6.7	6.6	6.6	6.6	6.4
Rolled oats.....	Lb.	.....	8.4	8.4	8.3	8.4	8.5	8.5	8.7	8.9	9.1	9.2	9.2	9.2	8.7
Corn flakes.....	(3)	.....	14.1	14.1	14.1	14.0	14.1	14.0	14.1	14.0	14.0	14.1	14.1	14.1	14.1
Cream of Wheat.....	(4)	.....	25.9	25.1	25.1	25.0	25.1	25.1	25.2	25.1	25.1	25.2	25.2	27.6	25.4
Macaroni.....	Lb.	.....	19.5	19.4	19.3	19.3	19.3	19.3	19.4	19.3	19.4	19.4	19.6	19.8	19.4
Rice.....	Lb.	8.7	13.8	14.3	13.4	13.4	13.8	14.6	15.5	16.5	17.3	17.6	17.7	17.7	15.1
Beans, navy.....	Lb.	.....	14.9	13.7	12.5	12.1	12.0	12.1	12.1	12.3	12.4	12.5	12.3	12.2	12.6
Potatoes.....	Lb.	1.7	3.2	3.1	2.9	3.1	3.3	3.8	4.8	5.0	4.3	3.8	3.9	4.3	3.8
Onions.....	Lb.	.....	4.1	4.3	6.0	6.9	10.7	11.2	9.8	7.8	6.5	6.3	6.9	8.1	7.4
Cabbage.....	Lb.	.....	4.1	4.3	5.3	9.1	9.6	6.8	6.2	5.3	4.9	4.5	4.5	6.1	5.9
Beans, baked.....	(5)	.....	19.1	18.6	18.1	17.7	17.5	17.3	17.3	17.1	17.1	17.1	17.0	17.0	17.6
Corn, canned.....	(6)	.....	20.0	19.6	19.3	19.2	19.1	19.1	19.3	19.1	19.2	19.1	18.9	18.9	19.2
Peas, canned.....	(6)	.....	19.3	19.2	19.0	19.0	19.0	19.0	19.2	19.1	19.2	19.1	19.1	19.2	19.1
Tomatoes, canned.....	(6)	.....	17.6	17.0	16.4	15.9	15.8	15.9	16.1	15.9	16.0	16.1	16.1	16.1	16.2
Sugar, granulated.....	Lb.	5.5	10.8	10.7	10.6	10.6	10.6	10.6	10.9	11.1	11.0	11.4	12.5	14.5	11.3
Tea.....	Lb.	54.4	69.2	68.4	70.4	69.7	69.8	70.1	70.5	70.7	71.0	71.0	71.3	69.3	70.1
Coffee.....	Lb.	29.8	35.0	36.6	37.6	38.3	40.5	42.6	46.2	47.8	48.8	48.6	48.9	48.9	43.3
Prunes.....	Lb.	.....	19.8	20.3	20.9	21.9	23.2	25.4	26.5	27.4	28.0	29.0	30.2	29.3	25.2
Raisins.....	Lb.	.....	16.1	16.2	16.4	16.3	16.5	16.8	17.3	18.0	19.4	20.9	22.7	23.9	18.4
Bananas.....	Doz.	.....	37.0	35.0	36.6	37.6	38.8	38.2	39.2	39.1	38.4	39.3	39.9	40.4	38.3
Oranges.....	Doz.	.....	51.5	46.8	53.2	55.5	54.1	54.4	53.4	53.7	53.9	55.3	54.2	52.0	53.2

<sup>1</sup> 15-16-ounce can.<sup>2</sup> Baked weight.<sup>3</sup> 8-ounce package.<sup>4</sup> 28-ounce package.<sup>5</sup> No. 2 can.TABLE 5.—AVERAGE ACTUAL AND RELATIVE FAMILY EXPENDITURE FOR 22 FOOD ARTICLES.<sup>1</sup>

Year 1913.	1919.												Year 1919.
	Jan. <sup>2</sup>	Feb. <sup>2</sup>	Mar. <sup>2</sup>	Apr. <sup>2</sup>	May. <sup>2</sup>	June. <sup>2</sup>	July. <sup>2</sup>	Aug. <sup>2</sup>	Sept. <sup>2</sup>	Oct. <sup>2</sup>	Nov. <sup>2</sup>	Dec. <sup>2</sup>	
\$343.94	\$636.97	\$591.70	\$602.88	\$624.82	\$635.83	\$632.79	\$653.39	\$659.70	\$647.73	\$648.62	\$661.08	\$676.22	\$639.26
100	185	172	175	182	185	184	190	192	188	189	192	197	186

<sup>1</sup> See first paragraph of footnote on p. 26; lamb is not included.<sup>2</sup> Cost of year's supply at prices charged in specified month.



## Relative Retail Prices of 22 Articles of Food.

IN TABLE 6 the average monthly and yearly prices of 22 food articles<sup>1</sup> are shown as relative prices or *percentages* of the average prices for the year 1913. These relatives are computed by dividing the average price of each commodity for each month and each year by the average price of that commodity for 1913. The relative prices or percentages are computed to enable the reader more readily to grasp the *per cent* of change in the prices of an article. Relative prices must be used with caution, however. For example, the relative price of pork chops in November, 1919, was 200, which means that the money price was 200 per cent of the money price in 1913 or, in other words, the price doubled. The relative price of pork chops in December was 181, showing a drop of 19 points since November. This is not a drop of 19 per cent. It is a drop of 19 points from 200, which is a decrease of only 9.5 per cent.

In the last column of this table are given index numbers showing the changes by months and years in the retail cost of the 22 food articles weighted according to the importance of each article in the consumption of the average family. To aid the general reader, a brief description of the method used to compute these index numbers is given. The average price per unit of each commodity is multiplied by the number of units of that commodity consumed by the average family. The products are the cost to the average family of each of the 22 food articles. These products for each month and year are added. The aggregates thus obtained give the cost to the average family for each month and year of the 22 food articles. These aggregates show the actual money cost of the family market basket for each month and year. It would be very difficult to see at a glance the percentage changes in the cost of the family market basket from these aggregate money costs. The aggregates are therefore changed to percentages of the aggregate cost for the year 1913 by dividing each aggregate by the 1913 aggregate. The principle is the same as that used in converting the money prices of individual articles into relatives or percentages of the 1913 prices. The percentages thus obtained are called index numbers. They show what the cost of the family market basket is in each month and year in percentages of the cost of the same market basket in the year 1913. Since index numbers are merely relatives or percentages of the prices of a group of commodities, they must be used with all the caution required in the use of relative prices in general. Prices are obtained each month for 43 food articles, but only 22 of these articles are included in the retail food price index because the amounts consumed by the average family have been obtained as yet for only these 22 articles. These

<sup>1</sup> See first paragraph of footnote on p. 26; lamb is not included.

articles comprise about two-thirds of the entire food budget of the average family and reflect with great accuracy *changes* in the cost of the food budget.

From September, 1915, there has been a steady increase in the cost of these 22 articles of food. In December, 1918, the cost of these foods was 87 per cent above the 1913 average. In January, 1919, there was a slight decline. February prices declined 7 per cent, but from that date until June the prices advanced. In June there was a decline of less than five-tenths of 1 per cent. July prices increased 3 per cent. August prices showed a further increase of 1 per cent, reaching the highest level up to that date. In September there was a decrease of 2 per cent; in October, a further decrease of two-tenths of 1 per cent; but in November, there was an increase of more than 2 per cent, which brought the cost up to the previous high-water mark in August. In December there was a further increase of 2.6 per cent. This made the cost in December of these 22 food articles 2.6 per cent higher than ever. In January, 1920, there was a further increase of 2 per cent. Using the average cost in the year 1913 as the base, or 100, the relative figure representing the January cost was 201, or an increase of 101 per cent over the year 1913, which means that the price of these 22 foods has more than doubled since 1913.

TABLE 6.—RELATIVE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES, JANUARY, 1913, TO JANUARY, 1920.

Year and month.	Sirloin steak.	Round steak.	Rib roast.	Chuck roast.	Plate beef.	Pork chops.	Bacon.	Ham.	Lard.	Hens.	Eggs.	Butter.	Cheese.	Milk.	Bread.	Flour.	Corn meal.	Rice.	Potatoes.	Sugar.	Coffee.	Tea.	22 weighted articles.
<b>1913: Av. for year.</b>	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January.....	94	92	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
February.....	94	93	95	93	92	89	94	93	97	95	108	107	100	100	100	100	99	99	91	106	100	100	98
March.....	97	96	98	98	98	97	97	97	99	100	77	108	100	100	100	100	98	93	88	99	100	100	97
April.....	101	101	101	101	101	103	99	99	100	104	73	106	100	100	100	100	98	99	87	98	100	100	98
May.....	101	101	101	101	101	100	100	100	100	104	76	94	99	99	100	101	98	93	91	97	100	100	97
June.....	102	101	102	101	101	99	101	102	100	103	81	92	99	99	100	101	98	99	104	97	100	100	98
July.....	104	104	102	103	101	103	104	104	101	102	87	91	99	99	100	101	98	100	110	100	100	100	100
August.....	104	104	102	103	101	104	105	106	102	101	96	92	100	100	100	100	100	100	109	102	100	100	101
September.....	103	104	101	103	102	108	104	104	102	101	109	98	100	100	100	100	102	100	110	104	100	100	102
October.....	101	104	101	103	102	107	103	102	101	100	121	100	101	101	100	99	103	100	106	101	100	100	104
November.....	100	102	100	102	102	102	102	101	101	97	144	101	102	102	100	99	104	100	107	99	100	100	105
December.....	99	101	100	101	102	97	99	100	100	102	138	104	104	102	100	99	104	100	106	108	100	100	104
<b>1914: Av. for year.</b>	103	106	103	104	104	105	102	99	102	102	102	94	104	100	112	104	105	101	108	108	100	100	104
January.....	99	102	100	102	102	99	98	98	100	100	126	104	104	102	110	98	104	100	108	95	99	100	104
February.....	99	102	101	103	102	100	98	99	99	104	106	93	104	102	110	99	103	100	108	94	99	100	101
March.....	100	103	102	102	102	100	99	99	99	105	90	92	105	101	110	99	103	100	107	93	100	100	99
April.....	100	103	102	103	102	103	99	99	99	108	74	86	104	100	110	99	103	100	105	91	100	100	97
May.....	102	105	102	103	103	106	99	99	98	106	77	85	103	100	110	99	103	100	112	91	100	101	98
June.....	103	106	103	104	103	103	100	100	100	103	82	88	103	100	110	99	103	100	132	93	100	101	99
July.....	106	109	105	106	104	106	101	103	97	103	87	89	103	100	110	98	103	101	155	95	99	101	102
August.....	110	113	108	109	107	119	107	108	99	104	96	94	103	100	112	106	105	101	111	143	100	101	107
September.....	107	110	105	108	107	113	108	108	99	103	107	98	104	100	114	113	109	101	105	145	100	101	107
October.....	103	107	104	106	106	110	106	105	98	100	113	98	104	101	114	111	109	101	89	132	99	101	105
November.....	100	105	103	104	105	104	104	102	99	97	131	103	104	101	114	112	109	101	53	113	99	101	105
December.....	101	103	101	103	103	93	100	100	97	94	139	103	104	101	116	113	107	101	84	110	99	101	105
<b>1915: Av. for year.</b>	101	103	101	101	100	96	100	97	93	97	99	93	105	99	124	126	108	104	89	120	101	100	101
January.....	100	102	101	101	102	88	101	98	97	95	129	101	105	101	120	124	109	104	85	110	101	100	103
February.....	98	100	100	99	101	85	99	96	97	97	98	98	106	100	126	138	110	104	84	120	101	100	101
March.....	97	99	99	98	100	85	98	95	96	99	74	94	106	99	126	136	110	104	82	120	101	100	98
April.....	99	100	100	99	100	84	98	94	96	100	75	94	105	99	126	137	109	104	86	122	101	100	99
May.....	101	103	101	101	101	99	98	95	96	101	76	91	106	98	128	139	109	104	89	124	101	100	100
June.....	103	105	103	103	101	98	99	97	95	98	78	90	106	98	128	130	109	104	99	126	101	100	100
July.....	105	107	104	103	101	100	100	98	93	97	81	90	105	98	126	125	108	104	85	127	101	100	100
August.....	104	106	103	101	101	101	103	100	98	97	88	88	103	99	126	124	108	104	82	123	101	100	100
September.....	104	106	103	102	101	107	100	97	88	97	101	92	103	99	124	117	108	104	79	118	100	100	101
October.....	103	104	102	101	99	110	101	99	91	97	117	92	104	100	124	113	108	104	94	111	100	100	103
November.....	101	102	101	99	98	99	101	100	92	95	133	95	105	100	122	113	107	104	97	119	100	100	104
December.....	99	101	100	99	98	87	101	100	92	95	135	101	107	100	122	114	107	104	106	124	100	100	105
<b>1916: Av. for year.</b>	108	110	107	107	106	108	106	109	111	111	109	103	117	102	130	135	113	105	155	146	100	100	105
January.....	101	102	101	99	99	99	89	101	93	104	123	100	110	100	122	120	107	105	136	123	100	100	107
February.....	101	102	102	101	100	92	102	102	94	101	101	99	112	100	124	125	108	104	141	125	100	100	106



[illegible]

The curve shown in the chart on page 39 pictures more readily to the eye the changes in the cost of the family market basket and the trend in the cost of the food budget than do the index numbers given in the table. The chart has been drawn on the logarithmic scale<sup>1</sup> because the percentages of increase or decrease are more accurately shown than on the arithmetic scale.

#### Retail Prices of Food in 50 Cities on Specified Dates.

**A**VERAGE retail food prices are shown in Table 7 for 19 cities for December 15, 1919, and for January 15 of each year, 1913, 1914, 1918, 1919, and 1920. These cities are as follows:

Atlanta, Ga.	Denver, Colo.	Pittsburgh, Pa.
Baltimore, Md.	Detroit, Mich.	St. Louis, Mo.
Birmingham, Ala.	Los Angeles, Calif.	San Francisco, Calif.
Boston, Mass.	Milwaukee, Wis.	Seattle, Wash.
Buffalo, N. Y.	New Orleans, La.	Washington, D. C.
Chicago, Ill.	New York, N. Y.	
Cleveland, Ohio.	Philadelphia, Pa.	

In Table 8, average prices are shown for December, 1919, and January, 1920, for 31 other cities as follows:

Bridgeport, Conn.	Little Rock, Ark.	Portland, Me.
Butte, Mont.	Louisville, Ky.	Portland, Oreg.
Charleston, S. C.	Manchester, N. H.	Providence, R. I.
Cincinnati, Ohio.	Memphis, Tenn.	Richmond, Va.
Columbus, Ohio.	Minneapolis, Minn.	Rochester, N. Y.
Dallas, Tex.	Mobile, Ala.	St. Paul, Minn.
Fall River, Mass.	Newark, N. J.	Salt Lake City, Utah.
Houston, Tex.	New Haven, Conn.	Scranton, Pa.
Indianapolis, Ind.	Norfolk, Va.	Springfield, Ill.
Jacksonville, Fla.	Omaha, Nebr.	
Kansas City, Mo.	Peoria, Ill.	

<sup>1</sup> For discussion of the logarithmic chart, see article on "Comparison of arithmetic and ratio charts," by Lucien W. Chaney, MONTHLY LABOR REVIEW for March, 1919, pp. 20-34. Also, The "Ratio" chart, by Prof. Irving Fisher, reprinted from Quarterly Publications of the American Statistical Association, June, 1917, 24 pages.

TREND IN RETAIL PRICES OF 22 FOOD ARTICLES, COMBINED, FOR THE UNITED STATES, BY MONTHS, JANUARY, 1913, TO JANUARY, 1920.

[Average for 1913=100.]

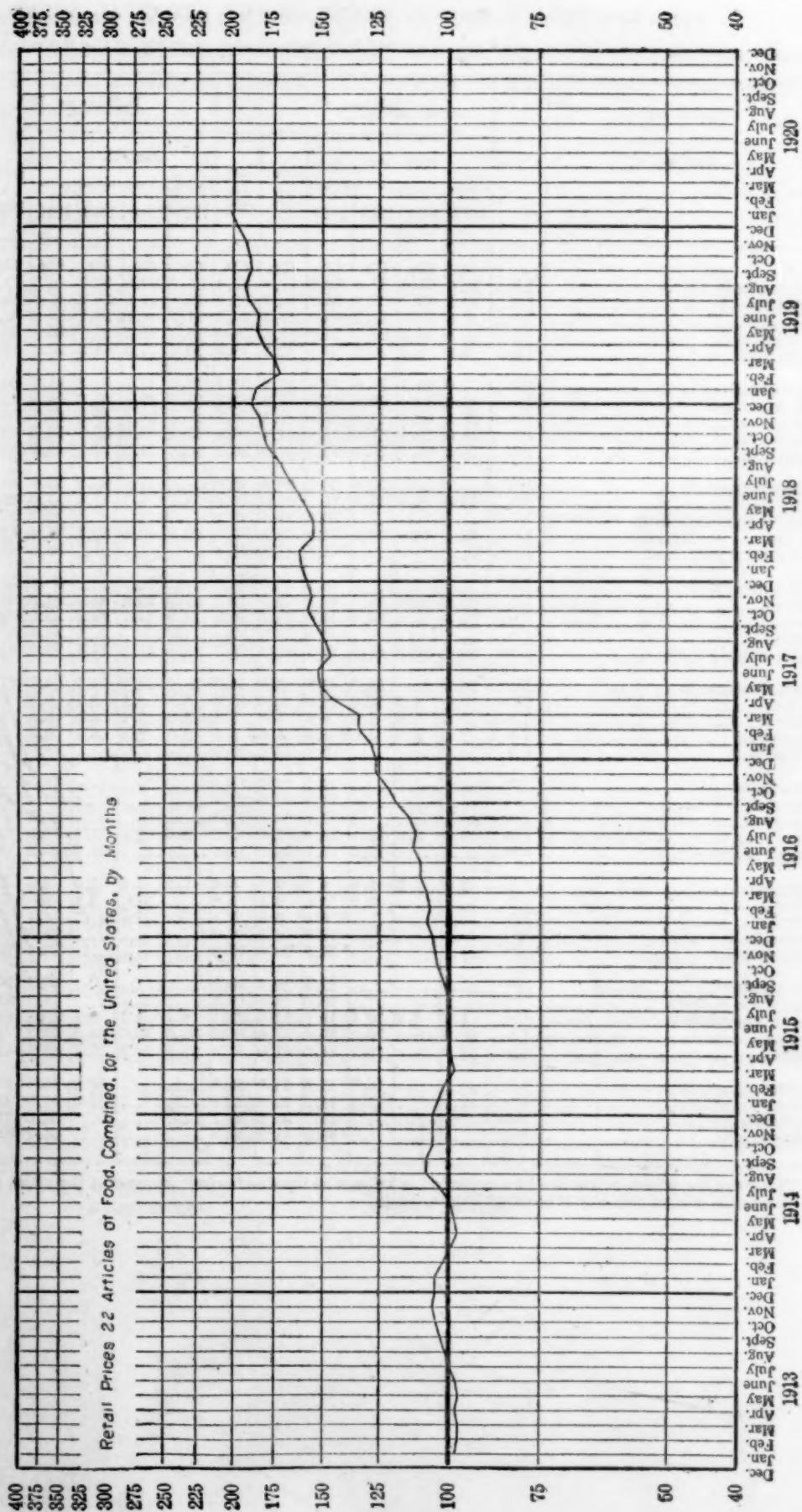




TABLE 7.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF

[The prices shown in Tables 7 and 8 are computed from reports sent monthly to the Bureau by retail

Article.	Unit.	Atlanta, Ga.						Baltimore, Md.					
		Jan. 15—				Dec. 15, 1919.	Jan. 15, 1920.	Jan. 15—				Dec. 15, 1919.	Jan. 15, 1920.
		1913	1914	1918	1919			1913	1914	1918	1919		
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak.....	Lb..	23.0	23.6	30.0	39.2	37.4	37.4	20.7	22.8	32.7	44.5	38.9	39.4
Round steak.....	Lb..	20.5	20.7	28.8	36.9	34.7	35.4	19.0	21.6	31.5	43.6	36.8	37.4
Rib roast.....	Lb..	17.5	19.0	23.1	30.9	27.3	29.0	17.0	17.8	26.7	35.6	31.6	32.3
Chuck roast.....	Lb..	13.5	15.3	20.2	25.9	21.5	24.0	15.0	15.2	23.1	30.8	24.8	25.5
Plate beef.....	Lb..	9.8	9.5	16.0	20.5	16.1	18.9	10.8	12.8	18.3	25.1	17.0	17.8
Pork chops.....	Lb..	21.0	22.1	34.6	39.4	37.9	37.1	18.0	17.5	34.8	41.0	33.5	34.6
Bacon.....	Lb..	32.0	30.4	50.6	63.9	55.3	53.5	21.3	22.3	45.0	54.3	42.4	41.1
Ham.....	Lb..	28.5	30.0	44.4	56.0	52.1	50.8	29.0	29.0	49.1	58.7	50.8	52.2
Lamb.....	Lb..	20.0	20.1	31.0	35.6	34.4	39.3	17.3	18.0	32.7	38.5	32.8	36.9
Hens.....	Lb..	19.5	20.9	30.9	39.6	37.9	39.5	20.0	21.3	35.1	42.0	39.5	44.0
Salmon (canned).....	Lb..	.....	.....	22.8	28.5	28.8	30.2	.....	.....	26.2	28.9	34.2	35.2
Milk, fresh.....	Qt..	10.0	10.6	17.5	21.7	25.0	25.0	8.8	8.7	13.0	17.0	16.0	16.0
Milk, evaporated (unsweetened). <sup>(2)</sup>	.....	.....	.....	.....	16.6	18.1	18.8	.....	.....	.....	16.7	16.4	16.6
Butter.....	Lb..	42.4	40.4	58.1	74.8	78.5	77.6	42.8	40.6	59.1	77.4	81.2	79.2
Oleomargarine.....	Lb..	.....	.....	.....	41.5	47.5	46.4	.....	.....	.....	38.6	41.0	40.8
Nut margarine.....	Lb..	.....	.....	.....	40.1	40.7	38.0	.....	.....	.....	36.6	35.9	35.1
Cheese.....	Lb..	25.0	25.0	34.7	47.3	42.8	42.5	23.3	23.3	35.5	47.3	43.2	43.8
Lard.....	Lb..	14.8	15.5	34.4	34.9	34.4	34.2	14.0	14.7	33.2	33.0	32.2	32.3
Crisco.....	Lb..	.....	.....	.....	36.3	34.3	37.1	.....	.....	.....	32.4	35.1	35.7
Eggs, strictly fresh.....	Doz.	30.6	39.3	67.5	70.2	91.4	76.7	33.8	38.8	74.1	73.8	87.8	84.4
Eggs, storage.....	Doz.	25.0	35.0	59.0	59.3	63.1	55.7	25.0	34.0	54.1	60.7	61.9	61.9
Bread.....	Lb. <sup>3</sup>	6.0	5.6	10.0	10.0	10.0	10.0	5.4	5.5	8.7	9.7	9.6	9.6
Flour.....	Lb..	3.6	3.4	7.0	6.9	7.3	7.5	3.2	3.1	6.6	6.8	8.0	8.4
Corn meal.....	Lb..	2.4	2.7	5.0	5.8	5.6	5.5	2.6	2.5	6.1	5.9	5.5	5.5
Rolled oats.....	Lb..	.....	.....	.....	10.9	10.6	10.8	.....	.....	.....	7.1	7.9	9.4
Corn flakes..... <sup>(4)</sup>	.....	.....	.....	.....	14.2	14.1	14.1	.....	.....	.....	13.5	12.9	13.1
Cream of Wheat..... <sup>(5)</sup>	.....	.....	.....	.....	25.8	27.9	27.8	.....	.....	.....	23.4	27.1	27.8
Macaroni.....	Lb..	.....	.....	.....	20.3	20.5	20.3	.....	.....	.....	17.3	18.3	18.7
Rice.....	Lb..	8.6	8.6	11.1	14.4	17.6	17.5	9.0	9.0	11.5	13.6	17.9	18.3
Beans, navy.....	Lb..	.....	.....	19.0	17.1	14.7	14.6	.....	.....	18.6	15.8	11.7	11.7
Potatoes.....	Lb..	2.0	2.3	3.9	4.2	4.8	6.0	1.7	1.8	3.6	3.4	3.6	4.5
Onions.....	Lb..	.....	.....	5.9	5.6	9.1	9.8	.....	.....	5.1	3.8	7.5	8.6
Cabbage.....	Lb..	.....	.....	.....	4.9	6.5	8.4	.....	.....	.....	4.1	5.6	9.1
Beans, baked..... <sup>(6)</sup>	.....	.....	.....	.....	19.3	16.3	16.0	.....	.....	.....	17.3	15.5	15.5
Corn, canned..... <sup>(6)</sup>	.....	.....	.....	.....	21.7	20.0	19.9	.....	.....	.....	20.4	17.8	18.4
Peas, canned..... <sup>(6)</sup>	.....	.....	.....	.....	22.3	20.4	20.2	.....	.....	.....	18.7	18.2	18.8
Tomatoes, canned..... <sup>(6)</sup>	.....	.....	.....	.....	16.0	14.5	14.6	.....	.....	.....	16.2	15.2	14.9
Sugar, granulated.....	Lb..	6.1	5.5	10.4	11.1	22.6	22.1	5.1	4.7	9.4	10.4	13.8	16.9
Tea.....	Lb..	60.0	60.0	79.3	89.9	87.6	86.9	56.0	56.0	65.3	73.2	71.6	72.4
Coffee.....	Lb..	32.0	32.0	29.7	34.0	51.0	51.6	25.2	24.8	27.7	33.8	45.8	44.9
Prunes.....	Lb..	.....	.....	16.7	18.5	24.8	25.3	.....	.....	16.6	19.4	30.1	28.7
Raisins.....	Lb..	.....	.....	17.1	18.2	22.8	22.9	.....	.....	15.3	17.8	23.8	24.1
Bananas.....	Doz.	.....	.....	.....	27.7	34.2	32.1	.....	.....	.....	30.0	32.2	33.6
Oranges.....	Doz.	.....	.....	.....	39.3	41.3	39.4	.....	.....	.....	46.2	52.2	44.5

<sup>1</sup>The steak for which prices are here reported is known as "porterhouse" in most of the cities included in this table, but in this city it is called sirloin steak.

# PRICES AND COST OF LIVING.

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FOOD FOR JAN. 15, 1913, 1914, 1918, 1919, 1920, AND DEC. 15, 1919, FOR 19 CITIES.

dealers. As some dealers occasionally fail to report, the number of quotations varies from month to month ]

Birmingham, Ala.						Boston, Mass.						Buffalo, N. Y.					
Jan. 15—				Dec. 15, 1919.	Jan. 15, 1920.	Jan. 15—				Dec. 15, 1919.	Jan. 15, 1920.	Jan. 15—				Dec. 15, 1919.	Jan. 15, 1920.
1913	1914	1918	1919			1913	1914	1918	1919			1913	1914	1918	1919		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
25.0	28.0	35.0	40.7	38.7	40.7	35.2	32.5	42.6	55.1	58.9	60.6	20.3	21.5	31.4	39.1	35.8	37.1
19.6	23.0	30.5	37.7	36.8	38.0	32.0	33.8	42.7	55.3	53.9	56.7	18.3	19.2	29.2	36.8	32.6	33.6
19.9	21.0	26.3	32.6	30.8	31.5	23.4	23.7	30.3	38.6	41.5	42.0	17.0	16.8	25.0	32.1	28.9	30.9
15.1	16.5	21.9	28.3	25.5	25.5	16.3	17.3	25.3	30.4	29.7	30.2	14.7	15.5	22.3	28.6	24.2	25.6
10.0	11.5	17.1	22.5	17.0	17.6							10.7	11.8	17.5	23.1	17.3	18.2
19.4	22.9	33.5	40.2	39.8	36.6	20.0	22.8	35.0	41.0	39.0	38.3	18.0	19.5	35.4	41.4	36.8	37.3
31.3	34.0	52.0	62.4	57.3	57.1	24.4	25.0	45.9	53.0	46.3	47.8	20.3	21.0	44.3	52.9	40.4	41.2
30.0	32.0	45.0	53.5	52.3	51.5	28.3	31.4	46.5	58.1	53.3	55.1	24.0	25.0	45.1	53.1	50.2	50.6
20.0	22.0	35.0	38.0	38.5	38.5	21.3	21.2	33.4	40.2	37.6	40.7	17.5	16.7	29.1	32.9	26.8	31.6
18.7	19.3	30.1	36.9	36.1	37.0	22.0	24.5	34.9	43.3	45.1	45.8	19.0	20.0	32.8	41.5	38.2	42.0
		27.2	31.8	39.5	39.3			30.2	32.3	35.1	36.0			28.6	28.9	34.3	35.0
10.3	10.0	15.2	20.0	25.0	25.0	8.9	8.9	14.5	16.5	17.0	17.0	8.0	8.0	14.0	16.0	16.0	16.0
			15.1	17.5	17.8				16.9	17.1	17.0				16.8	16.5	16.4
44.0	43.0	59.5	77.2	82.1	78.1	38.5	38.2	54.4	71.1	72.9	73.3	40.2	39.8	57.0	75.5	78.2	73.7
			42.0	45.8	45.1				38.9	42.8	44.3				39.0	42.9	42.8
			40.3	38.3	38.4				36.6	35.8	35.7				33.7	34.4	34.4
23.0	22.5	35.6	47.8	42.3	42.6	23.1	24.0	33.2	39.3	42.8	42.9	21.5	21.5	33.6	42.4	41.7	41.9
15.3	15.9	32.7	33.1	35.0	33.5	15.4	15.8	33.4	33.3	34.8	33.5	14.1	14.3	31.9	31.5	32.7	31.2
			33.7	37.3	37.5				33.6	36.0	36.6				31.6	35.8	35.6
33.8	38.8	68.3	74.3	89.1	75.0	41.0	47.3	79.1	90.2	108.6	103.3	37.7	43.5	71.8	75.5	95.3	88.0
25.0	30.0	57.9	69.5	64.2	61.5	26.4	36.3	54.1	58.8	65.1	64.7	23.3	34.0	52.6	64.8	60.4	60.3
6.4	5.6	10.0	11.7	9.6	9.6	5.9	5.9	8.7	9.1	9.6	11.0	5.6	5.2	9.3	9.7	10.0	10.0
3.8	3.8	6.7	7.2	7.6	7.8	3.7	3.6	7.4	6.8	8.4	8.8	2.9	2.9	6.2	6.2	7.4	7.7
2.1	2.6	5.1	5.3	5.3	5.3	3.5	3.6	7.7	6.8	7.4	7.2	2.5	2.7	7.7	5.8	6.6	6.4
			10.8	11.1	11.7				7.3	7.9	8.0				6.8	7.8	8.1
			14.8	14.8	14.7				13.8	13.9	14.0				13.2	13.0	13.0
			25.2	26.8	28.8				24.2	27.4	28.8				24.5	25.4	26.6
			21.1	20.9	20.8				22.4	22.1	22.7				20.5	20.3	20.8
8.2	7.9	12.5	13.4	17.7	18.3	9.2	9.4	12.0	14.0	18.1	18.5	9.3	9.3	11.9	13.7	17.5	17.8
		19.2	17.4	14.2	13.6			18.8	15.4	11.4	11.3			19.3	13.8	11.5	11.5
1.9	2.3	3.9	4.3	5.1	6.2	1.7	2.0	3.7	3.3	3.9	4.8	1.4	1.8	3.1	2.7	3.9	5.0
		6.0	4.6	9.1	10.0			5.7	3.8	9.2	9.5			5.4	3.6	7.8	9.0
			4.7	6.5	8.6				4.1	6.7	8.7				3.0	5.5	7.4
			20.5	18.1	18.9				20.1	17.1	17.2				16.7	14.1	14.1
			20.6	19.2	18.8				21.2	20.5	20.6				20.5	18.7	18.4
			20.6	21.6	21.3				21.1	20.4	21.7				18.3	17.9	17.8
			16.6	14.3	14.2				20.3	15.3	16.3				17.9	16.5	15.4
5.7	5.3	9.6	10.9	21.4	21.3	5.8	5.2	9.9	10.7	11.0	14.4	5.5	5.1	9.7	10.7	11.2	16.4
61.3	61.3	76.2	83.7	86.2	87.3	58.6	58.6	61.7	66.0	66.7	66.3	45.0	45.0	55.5	63.9	66.4	67.0
28.8	28.3	32.8	36.8	49.8	49.6	33.0	33.0	34.6	38.9	53.3	53.0	29.2	29.3	30.0	34.4	47.0	47.0
			14.8	18.4	30.4	29.7			16.7	20.5	28.8			16.9	20.7	30.4	29.9
			15.3	18.2	22.7	22.3			14.8	15.9	23.5			14.0	14.7	20.8	23.2
				39.1	42.4	44.5				33.8	45.0				40.0	42.3	43.4
				44.8	42.6	42.8				52.6	55.9				56.2	57.9	57.5

\* 15-16-ounce can.  
\* Baked weight.

\* 8-ounce package.  
\* 25-ounce package.

\* No. 2 can.

TABLE 7.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD

Article.	Unit.	Chicago, Ill.						Cleveland, Ohio.					
		Jan. 15—				Dec. 15, 1919.	Jan. 15, 1920.	Jan. 15—				Dec. 15, 1919.	Jan. 15, 1920.
		1913	1914	1918	1919			1913	1914	1918	1919		
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak.....	Lb.	21.0	24.8	30.2	37.5	35.9	37.2	22.3	24.7	30.2	37.8	37.7	38.4
Round steak.....	Lb.	18.2	21.2	27.3	34.0	31.7	32.0	18.8	22.0	28.8	35.5	34.3	34.6
Rib roast.....	Lb.	18.2	19.6	25.4	31.1	29.0	30.1	17.8	19.1	24.4	29.6	29.0	29.5
Chuck roast.....	Lb.	14.3	15.8	21.2	27.5	23.5	24.3	14.7	16.4	22.4	27.6	24.2	25.4
Plate beef.....	Lb.	10.9	11.9	16.4	20.7	16.7	17.6	10.4	12.0	16.8	20.7	16.9	18.2
Pork chops.....	Lb.	16.0	17.9	31.6	35.2	33.3	32.4	17.5	19.9	33.1	39.5	37.1	36.8
Bacon.....	Lb.	31.3	31.0	49.8	61.6	52.7	53.1	23.9	27.4	47.0	58.7	47.8	49.7
Ham.....	Lb.	30.8	32.0	42.8	55.3	51.4	51.8	32.0	33.5	45.6	57.6	53.4	56.2
Lamb.....	Lb.	18.7	19.7	30.6	34.2	32.3	37.0	17.3	19.1	30.1	33.6	33.0	36.9
Hens.....	Lb.	17.4	17.8	30.4	33.5	32.0	37.6	19.3	20.6	33.8	39.1	37.3	42.8
Salmon (canned).....	Lb.	.....	.....	30.3	31.6	37.1	36.0	.....	.....	28.2	30.6	36.5	37.5
Milk, fresh.....	Qt.	8.0	8.0	11.9	14.0	15.1	15.0	8.8	8.0	13.0	15.0	16.0	16.0
Milk, evaporated (unsweetened). <sup>(1)</sup>	(1)	.....	.....	.....	16.0	16.2	16.1	.....	.....	.....	16.0	17.2	17.4
Butter.....	Lb.	39.9	38.1	54.4	71.3	74.4	69.0	41.8	42.8	57.1	76.0	80.4	74.8
Oleomargarine.....	Lb.	.....	.....	.....	37.4	41.7	41.6	.....	.....	.....	39.7	46.1	45.8
Nut margarine.....	Lb.	.....	.....	.....	34.6	33.7	33.3	.....	.....	.....	35.2	35.5	35.4
Cheese.....	Lb.	25.0	25.3	37.5	43.9	45.0	44.9	23.0	23.5	33.8	42.6	42.4	43.3
Lard.....	Lb.	14.8	15.0	31.8	31.4	33.4	31.5	15.8	16.3	31.6	32.7	34.4	34.0
Crisco.....	Lb.	.....	.....	.....	33.1	36.2	35.4	.....	.....	.....	32.7	37.8	37.9
Eggs, strictly fresh.....	Doz.	32.7	38.8	65.1	69.5	82.1	77.8	35.0	44.8	72.5	77.9	98.0	92.3
Eggs, storage.....	Doz.	23.8	33.5	53.4	56.4	60.2	60.5	24.5	36.0	52.4	60.2	63.1	66.1
Bread.....	Lb. <sup>2</sup>	6.1	6.1	9.2	10.2	10.7	10.7	5.5	5.6	9.0	10.0	9.6	10.9
Flour.....	Lb.	2.8	2.9	6.1	6.1	7.7	7.9	3.2	3.2	6.8	6.7	7.8	8.2
Corn meal.....	Lb.	2.9	3.0	7.0	5.8	6.6	6.6	2.8	2.9	7.2	6.2	6.3	6.3
Rollod oats.....	Lb.	.....	.....	.....	7.3	7.3	8.3	.....	.....	.....	7.9	9.4	10.3
Corn flakes.....	( <sup>3</sup> )	.....	.....	.....	12.7	13.3	13.0	.....	.....	.....	13.9	14.1	14.6
Cream of Wheat.....	( <sup>4</sup> )	.....	.....	.....	24.2	25.7	27.4	.....	.....	.....	24.7	27.9	28.9
Macaroni.....	Lb.	.....	.....	.....	19.1	18.3	18.8	.....	.....	.....	18.9	19.0	19.1
Rice.....	Lb.	9.0	9.0	12.0	13.7	17.4	17.6	8.5	9.0	11.9	14.4	18.6	18.7
Beans, navy.....	Lb.	.....	.....	18.5	14.1	12.1	11.8	.....	.....	18.1	13.9	11.4	11.6
Potatoes.....	Lb.	1.3	1.7	2.8	2.7	4.1	5.2	1.4	2.0	3.0	3.1	4.2	5.3
Onions.....	Lb.	.....	.....	4.5	3.5	7.6	8.3	.....	.....	4.8	3.4	7.6	9.0
Cabbage.....	Lb.	.....	.....	.....	3.7	6.6	8.1	.....	.....	.....	3.6	6.1	9.1
Beans, baked.....	( <sup>5</sup> )	.....	.....	.....	17.3	16.5	16.6	.....	.....	.....	18.2	15.9	15.8
Corn, canned.....	( <sup>6</sup> )	.....	.....	.....	18.0	17.0	17.2	.....	.....	.....	20.5	19.3	19.4
Peas, canned.....	( <sup>5</sup> )	.....	.....	.....	17.0	17.1	17.1	.....	.....	.....	19.4	19.1	19.8
Tomatoes, canned.....	( <sup>6</sup> )	.....	.....	.....	17.0	16.0	15.3	.....	.....	.....	17.7	16.3	16.0
Sugar, granulated.....	Lb.	5.3	5.0	8.4	10.4	17.1	19.8	5.6	5.1	9.6	10.9	14.1	18.9
Tea.....	Lb.	53.3	53.3	59.3	64.0	67.1	64.5	50.0	50.0	59.9	64.8	74.0	74.0
Coffee.....	Lb.	30.0	30.0	28.3	32.7	45.0	44.7	26.5	26.5	28.9	34.8	50.2	51.1
Prunes.....	Lb.	.....	.....	16.2	20.0	30.0	29.6	.....	.....	17.1	20.2	29.2	29.1
Raisins.....	Lb.	.....	.....	15.0	15.9	26.2	25.4	.....	.....	14.6	15.7	23.8	25.6
Bananas.....	Doz.	.....	.....	.....	35.5	37.7	37.5	.....	.....	.....	41.4	47.5	48.5
Oranges.....	Doz.	.....	.....	.....	49.3	50.5	51.6	.....	.....	.....	58.7	56.5	53.8

<sup>1</sup> 15-16 ounce package.<sup>2</sup> Baked weight.<sup>3</sup> 8-ounce package.



# PRICES AND COST OF LIVING.

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FOR JAN. 15, 1913, 1914, 1918, 1919, 1920, AND DEC. 15, 1919, FOR 19 CITIES—Continued.

Denver, Colo.						Detroit, Mich.						Los Angeles, Calif.					
Jan. 15—				Dec. 15, 1919.	Jan. 15, 1920.	Jan. 15—				Dec. 15, 1919.	Jan. 15, 1920.	Jan. 15—				Dec. 15, 1919.	Jan. 15, 1920.
1913	1914	1918	1919			1913	1914	1918	1919			1913	1914	1918	1919		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
22.0	22.9	29.2	36.9	31.8	34.3	22.8	26.2	31.8	37.6	36.7	38.2	22.2	23.1	26.4	33.9	31.5	34.0
19.0	20.7	27.6	34.0	28.8	30.4	18.0	21.4	28.5	34.1	31.8	32.7	20.0	21.0	24.4	31.6	29.5	30.8
15.9	16.7	22.5	28.6	25.3	25.8	18.0	20.2	25.1	29.7	29.2	30.6	17.4	19.4	23.2	30.2	26.5	28.1
14.0	15.3	20.3	25.2	20.7	21.8	14.5	15.6	21.0	25.7	22.0	24.0	14.7	16.6	19.2	25.0	20.5	22.4
9.1	9.7	14.8	19.1	13.9	15.0	10.6	11.7	16.7	20.0	15.9	17.4	11.8	13.5	15.7	20.7	16.4	18.3
17.5	18.6	33.3	40.0	36.0	34.7	16.5	17.6	33.3	37.9	36.4	37.3	24.4	25.6	37.3	45.7	46.6	47.1
26.3	27.4	51.8	61.3	52.2	52.3	21.0	22.8	45.8	55.8	47.0	48.1	33.8	33.5	53.3	67.0	58.8	60.5
27.0	28.3	46.7	59.3	54.8	54.0	23.5	28.0	42.3	57.5	53.3	52.5	35.0	34.1	52.3	62.9	59.4	59.5
15.0	15.1	28.9	30.4	28.3	30.4	16.0	16.6	31.3	35.2	34.4	39.1	17.4	19.1	31.1	34.4	31.6	34.6
20.4	19.7	30.5	35.8	35.0	38.0	18.8	19.4	34.2	38.9	36.7	41.1	26.8	27.4	36.0	46.3	48.2	48.4
.....	.....	27.6	32.5	36.1	37.7	.....	.....	28.6	31.8	36.8	37.5	.....	.....	32.9	38.7	43.5	46.6
8.4	8.4	11.5	12.6	13.0	13.0	9.0	8.9	14.0	15.0	16.0	16.0	10.0	10.0	14.0	14.0	16.0	16.0
.....	.....	.....	.....	17.3	16.9	.....	.....	.....	16.4	16.5	16.5	.....	.....	.....	15.9	15.1	15.2
40.0	39.4	54.3	73.3	77.2	68.5	39.7	39.9	55.6	74.4	79.4	73.7	44.5	38.5	57.4	73.0	75.2	73.2
.....	.....	.....	39.2	45.1	43.3	.....	.....	.....	39.8	43.7	44.4	.....	.....	.....	41.9	45.5	45.5
.....	.....	.....	.....	35.9	35.3	.....	.....	.....	35.3	34.7	34.9	.....	.....	.....	38.2	36.0	35.9
26.1	26.1	35.8	41.6	45.0	45.1	21.3	22.0	33.8	44.4	43.4	43.7	19.5	20.0	33.3	45.9	44.6	44.8
15.6	16.3	34.2	34.2	37.9	36.8	15.6	16.1	32.9	33.4	34.9	33.9	18.0	18.0	33.2	34.3	35.2	35.0
.....	.....	.....	32.9	37.5	38.6	.....	.....	.....	33.2	36.7	37.3	.....	.....	.....	33.9	37.9	37.9
37.0	43.6	61.2	74.8	95.8	73.1	35.0	43.2	72.6	75.1	94.0	92.5	41.0	49.6	62.1	67.1	79.8	67.4
25.0	33.5	50.9	58.8	64.7	62.3	25.2	36.5	52.8	61.3	62.4	63.8	30.0	41.7	49.3	59.4	64.3	58.8
5.4	5.4	10.0	11.9	11.0	11.5	5.6	5.6	8.7	9.5	10.9	11.1	6.2	6.1	8.9	8.9	10.0	9.7
2.6	2.5	5.4	6.0	6.8	7.1	3.1	3.1	6.2	6.4	7.8	7.9	3.4	3.5	6.3	7.1	7.4	7.8
2.5	2.6	5.9	5.6	6.1	6.2	2.8	3.0	7.7	6.5	6.7	6.9	3.3	3.5	7.5	6.9	7.5	7.5
.....	.....	.....	8.4	8.9	9.7	.....	.....	.....	8.0	8.0	9.7	.....	.....	.....	9.2	8.7	9.2
.....	.....	.....	14.8	14.8	14.8	.....	.....	.....	13.8	13.8	13.8	.....	.....	.....	13.7	13.1	13.2
.....	.....	.....	25.2	27.4	29.4	.....	.....	.....	25.1	27.2	28.3	.....	.....	.....	24.7	28.0	29.0
.....	.....	.....	19.9	19.3	19.1	.....	.....	.....	19.2	19.9	19.5	.....	.....	.....	18.4	17.2	17.8
8.6	8.6	11.5	14.2	17.6	18.3	8.4	8.4	11.8	13.7	18.4	18.3	7.7	8.0	11.0	13.7	17.0	17.8
.....	.....	17.7	14.7	13.1	13.3	.....	.....	17.9	13.5	11.4	11.4	.....	.....	16.7	14.1	10.2	10.6
1.2	1.7	2.2	2.7	4.4	5.5	1.3	1.6	2.9	2.6	4.0	5.3	1.1	1.9	2.5	3.1	5.2	6.4
.....	.....	4.7	4.1	7.8	8.0	.....	.....	5.3	4.0	8.2	8.7	.....	.....	3.7	3.7	7.0	7.8
.....	.....	.....	3.7	6.8	78.5	.....	.....	.....	4.5	7.2	8.7	.....	.....	.....	2.7	4.8	5.2
.....	.....	.....	20.1	17.6	18.1	.....	.....	.....	18.3	16.2	15.9	.....	.....	.....	19.6	17.9	18.3
.....	.....	.....	18.7	18.4	18.4	.....	.....	.....	19.7	19.5	19.0	.....	.....	.....	19.2	18.5	18.7
.....	.....	.....	19.5	19.9	19.6	.....	.....	.....	17.9	18.6	14.0	.....	.....	.....	19.9	19.0	19.4
.....	.....	.....	15.7	15.3	15.0	.....	.....	.....	17.5	16.6	16.9	.....	.....	.....	17.2	13.9	15.6
5.8	5.0	8.9	11.6	13.2	13.3	5.2	5.0	8.7	10.8	14.6	15.2	5.9	5.2	8.7	10.6	13.9	14.4
52.8	52.8	57.5	65.6	70.6	69.8	43.3	43.3	54.4	63.6	68.6	63.6	54.5	54.5	58.6	68.8	69.8	70.3
29.4	29.4	30.0	35.8	50.1	49.7	29.3	30.0	29.8	35.0	48.9	48.8	36.3	36.3	31.2	34.5	45.4	46.9
.....	.....	16.6	20.5	29.9	30.9	.....	.....	16.8	20.3	30.4	30.8	.....	.....	14.6	20.3	27.2	27.6
.....	.....	14.7	16.8	23.7	25.1	.....	.....	13.8	15.9	23.8	24.4	.....	.....	13.8	16.7	22.3	24.4
.....	.....	.....	43.2	43.3	42.8	.....	.....	.....	30.1	34.0	35.4	.....	.....	.....	38.1	42.0	42.5
.....	.....	.....	55.4	53.0	53.4	.....	.....	.....	53.8	53.8	54.0	.....	.....	.....	39.3	46.9	41.3

\* 28-ounce package.

\* No. 2 can.

TABLE 7.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD

Article.	Unit.	Milwaukee, Wis.						New Orleans, La.					
		Jan. 15—				Dec. 15, 1919.	Jan. 15, 1920.	Jan. 15—				Dec. 15, 1919.	Jan. 15, 1920.
		1913	1914	1918	1919			1913	1914	1918	1919		
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak.....	Lb..	20.5	23.4	29.8	36.2	35.0	36.6	19.6	22.1	28.1	35.2	31.6	33.6
Round steak.....	Lb..	18.5	21.6	28.4	34.5	32.8	33.5	17.1	19.3	25.3	31.9	29.1	30.9
Rib roast.....	Lb..	17.3	18.8	24.5	29.9	28.2	29.7	18.3	19.9	24.5	29.4	28.7	29.2
Chuck roast.....	Lb..	15.0	16.4	22.5	27.6	24.8	26.1	12.1	14.9	18.3	25.3	21.4	22.8
Plate beef.....	Lb..	10.5	11.7	16.7	20.8	17.4	18.0	10.9	11.6	16.8	21.6	19.5	19.7
Pork chops.....	Lb..	15.3	17.8	32.1	36.6	33.0	33.3	20.0	22.9	35.0	43.6	42.7	42.5
Bacon.....	Lb..	25.5	27.4	48.9	57.7	50.2	52.0	29.8	29.9	51.9	63.3	52.0	51.4
Ham.....	Lb..	26.0	27.8	45.1	53.7	50.5	50.8	26.3	26.0	43.8	51.8	48.5	49.5
Lamb.....	Lb..	18.5	19.0	31.2	36.4	32.7	37.3	19.8	22.1	29.8	39.4	38.2	38.7
Hens.....	Lb..	17.8	19.0	30.4	35.0	31.6	38.1	20.8	21.6	33.0	41.5	41.9	42.6
Salmon (canned).....	Lb..	.....	.....	27.8	31.0	35.3	37.3	.....	.....	31.3	36.6	37.0	38.2
Milk, fresh.....	Qt.	7.0	7.0	11.0	13.0	13.0	13.0	10.0	9.7	14.2	16.3	18.5	18.5
Milk, evaporated (unsweetened). <sup>(1)</sup>	Lb..	.....	.....	.....	16.2	17.0	17.3	.....	.....	.....	15.8	16.6	16.7
Butter.....	Lb..	38.0	38.5	54.4	74.0	77.2	70.0	41.1	40.1	56.8	76.3	80.7	77.1
Oleomargarine.....	Lb..	.....	.....	.....	38.8	43.1	43.0	.....	.....	.....	40.2	45.9	45.6
Nut margarine.....	Lb..	.....	.....	.....	34.7	33.8	34.1	.....	.....	.....	36.4	36.1	38.1
Cheese.....	Lb..	22.3	22.3	33.5	46.1	41.6	41.6	22.0	22.8	34.8	46.4	43.2	43.2
Lard.....	Lb..	15.0	15.6	31.9	34.0	34.7	33.0	14.4	15.0	33.1	33.7	35.9	35.1
Crisco.....	Lb..	.....	.....	.....	33.1	37.1	36.7	.....	.....	.....	33.9	39.2	39.2
Eggs, strictly fresh.....	Doz.	34.6	38.2	63.0	70.8	87.2	79.6	35.6	38.0	58.6	72.1	80.9	77.1
Eggs, storage.....	Doz.	25.3	33.3	49.1	52.6	60.3	59.1	25.0	30.0	49.2	59.3	64.0	63.5
Bread.....	Lb. <sup>3</sup>	5.6	5.7	8.8	8.6	10.0	10.5	.....	5.0	9.1	9.2	9.1	9.8
Flour.....	Lb..	3.1	3.1	6.2	6.4	8.0	8.3	3.7	3.7	7.2	7.4	7.6	8.1
Corn meal.....	Lb..	3.3	3.3	7.1	6.5	6.5	6.5	2.6	2.6	6.3	5.4	5.5	5.4
Rolled oats.....	Lb..	.....	.....	.....	7.9	8.2	8.3	.....	.....	.....	7.5	9.0	9.6
Corn flakes.....	( <sup>4</sup> )	.....	.....	.....	14.3	14.2	14.1	.....	.....	.....	14.2	14.5	14.1
Cream of Wheat.....	( <sup>5</sup> )	.....	.....	.....	24.8	28.2	28.8	.....	.....	.....	24.8	27.4	28.8
Macaroni.....	Lb..	.....	.....	.....	19.9	18.8	19.1	.....	.....	.....	11.7	12.0	11.7
Rice.....	Lb..	9.0	9.0	11.8	14.3	18.0	18.5	7.4	7.5	10.6	12.0	15.4	16.0
Beans, navy.....	Lb..	.....	.....	19.0	14.0	11.0	11.1	.....	.....	17.6	14.5	11.7	11.2
Potatoes.....	Lb..	1.2	1.6	2.7	2.8	4.2	5.1	2.0	2.3	3.8	4.0	5.1	6.6
Onions.....	Lb..	.....	.....	4.8	3.8	8.1	8.6	.....	.....	4.7	4.1	8.2	9.1
Cabbage.....	Lb..	.....	.....	.....	3.8	7.0	8.2	.....	.....	.....	3.0	4.3	6.0
Beans, baked.....	( <sup>6</sup> )	.....	.....	.....	18.5	15.9	15.6	.....	.....	.....	18.9	17.1	17.0
Corn, canned.....	( <sup>6</sup> )	.....	.....	.....	17.6	17.8	17.3	.....	.....	.....	18.8	18.0	17.1
Peas, canned.....	( <sup>6</sup> )	.....	.....	.....	17.1	17.4	16.7	.....	.....	.....	18.6	18.6	18.6
Tomatoes, canned.....	( <sup>6</sup> )	.....	.....	.....	17.5	16.6	15.0	.....	.....	.....	15.3	15.4	15.0
Sugar, granulated.....	Lb..	5.5	5.3	8.6	10.9	14.4	17.5	5.7	4.9	9.6	10.5	12.2	19.3
Tea.....	Lb..	50.0	50.0	59.5	67.0	68.0	69.8	62.1	62.1	62.6	64.5	70.7	75.5
Coffee.....	Lb..	27.5	27.5	26.1	32.1	47.6	47.2	27.1	25.7	26.6	32.4	42.2	42.2
Prunes.....	Lb..	.....	.....	15.8	19.6	28.8	29.0	.....	.....	15.9	19.0	30.5	29.9
Raisins.....	Lb..	.....	.....	15.1	15.6	25.1	25.6	.....	.....	15.1	17.1	23.6	25.4
Bananas.....	Doz.	.....	.....	.....	35.0	40.0	41.6	.....	.....	.....	20.0	25.0	25.0
Oranges.....	Doz.	.....	.....	.....	52.9	58.9	55.3	.....	.....	.....	43.8	45.8	41.4

<sup>1</sup> The steak for which prices are here quoted is known as "porterhouse" in most of the cities included in his table, but in this city it is called "sirloin steak."

# PRICES AND COST OF LIVING.

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FOR JAN. 15, 1913, 1914, 1918, 1919, 1920, AND DEC. 15, 1919, FOR 19 CITIES—Continued.

New York, N. Y.						Philadelphia, Pa.						Pittsburgh, Pa.					
Jan. 15—				Dec. 15, 1919.	Jan. 15, 1920.	Jan. 15—				Dec. 15, 1919.	Jan. 15, 1920.	Jan. 15—				Dec. 15, 1919.	Jan. 15, 1920.
1913	1914	1918	1919			1913	1914	1918	1919			1913	1914	1918	1919		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
24.4	25.6	34.4	44.8	42.7	43.3	28.3	30.0	38.7	50.4	49.1	49.8	24.8	27.2	36.0	47.3	43.6	45.0
23.1	25.1	35.2	47.3	44.5	44.6	23.1	25.7	36.0	47.4	44.9	45.2	21.4	22.8	33.2	44.0	39.3	39.8
21.0	21.8	29.4	40.9	37.8	38.4	21.4	21.9	29.6	38.2	38.5	37.9	20.4	21.3	27.2	36.7	34.3	34.1
14.9	16.1	23.6	32.7	27.6	28.5	16.5	18.0	25.3	32.7	29.4	28.8	15.4	17.0	23.9	31.9	27.4	27.8
13.7	14.7	22.1	28.0	24.8	25.2	10.5	11.7	18.3	22.2	17.7	18.3	10.8	12.8	17.5	23.2	17.5	18.3
19.5	21.6	34.8	43.5	41.0	39.9	19.8	21.7	37.2	42.9	39.5	39.1	19.4	21.5	35.6	43.6	38.8	37.6
23.0	25.1	46.2	54.8	47.7	47.8	23.6	25.4	46.8	58.2	49.4	48.6	27.2	28.3	50.5	61.7	53.6	52.6
27.8	29.0	32.8	57.1	56.0	56.0	29.1	29.6	48.8	58.3	56.1	55.5	29.0	29.1	47.0	59.6	57.0	58.3
15.9	15.9	28.1	33.6	28.8	30.8	17.7	19.0	31.4	38.9	39.2	40.9	21.3	20.7	34.5	39.6	37.7	41.3
19.8	21.3	32.6	40.8	40.1	40.3	20.8	22.9	33.8	43.1	44.5	44.3	24.3	25.8	38.8	46.3	43.1	46.9
.....	.....	35.5	37.0	41.9	41.9	.....	.....	26.6	30.0	34.0	34.4	.....	.....	30.5	31.0	36.8	38.0
9.0	9.0	15.0	16.0	18.0	18.0	8.0	8.0	13.5	14.0	14.0	14.0	8.8	9.2	13.7	15.0	16.0	16.0
.....	.....	.....	16.1	16.1	16.0	.....	.....	.....	16.0	16.5	16.3	.....	.....	.....	15.8	16.7	16.6
40.8	39.8	57.4	75.5	80.6	75.2	46.4	46.1	62.4	80.4	86.3	82.4	41.9	42.3	58.6	78.0	81.8	77.2
.....	.....	.....	37.2	41.6	43.9	.....	.....	.....	41.1	45.2	45.9	.....	.....	.....	40.3	43.5	42.8
.....	.....	.....	34.3	34.5	34.7	.....	.....	.....	36.4	37.5	38.9	.....	.....	.....	36.9	35.6	35.5
20.0	19.8	34.4	42.7	43.1	43.3	25.0	25.0	36.2	44.6	46.4	46.0	24.5	24.5	35.2	44.3	43.7	44.0
15.9	15.9	33.0	33.1	34.3	33.8	14.4	15.1	33.6	33.3	33.5	32.4	15.6	15.6	33.4	33.6	35.0	34.0
.....	.....	.....	32.3	36.6	36.5	.....	.....	.....	32.3	35.3	34.9	.....	.....	.....	33.3	37.4	37.2
42.6	49.9	80.8	78.1	101.3	95.8	38.4	44.0	74.1	78.6	96.1	90.8	37.6	43.1	74.7	79.2	94.4	88.0
27.4	37.7	53.6	61.1	65.2	65.6	25.2	34.7	52.9	64.5	64.5	64.6	25.0	36.1	53.9	62.2	63.4	62.8
6.0	6.1	9.1	10.0	10.0	10.0	4.8	4.8	8.0	9.4	9.4	9.4	5.3	5.5	9.3	10.0	10.3	11.3
3.3	3.2	7.0	6.8	8.1	8.5	3.2	3.1	7.1	6.7	7.6	7.9	3.0	3.1	7.0	6.6	7.9	8.2
3.5	3.5	8.2	6.3	7.7	7.6	2.8	2.8	7.1	6.4	6.4	6.2	2.7	2.9	8.8	6.9	7.6	7.4
.....	.....	.....	7.4	8.1	8.2	.....	.....	.....	7.6	8.4	8.5	.....	.....	.....	9.0	9.0	10.3
.....	.....	.....	12.4	12.1	12.0	.....	.....	.....	12.8	12.3	12.5	.....	.....	.....	14.3	13.8	13.6
.....	.....	.....	24.0	26.0	27.6	.....	.....	.....	24.3	27.1	27.7	.....	.....	.....	25.5	27.6	28.5
.....	.....	.....	19.5	21.0	21.2	.....	.....	.....	19.8	22.0	20.6	.....	.....	.....	18.8	19.3	18.7
8.0	8.2	11.8	13.8	16.9	17.6	9.8	10.0	12.8	14.7	18.7	18.5	9.2	9.2	11.9	14.4	18.5	19.1
.....	.....	18.5	15.3	12.3	12.5	.....	.....	18.7	14.7	12.2	12.1	.....	.....	19.7	14.6	12.3	11.9
2.5	2.5	4.3	4.0	4.7	5.7	2.1	2.4	3.9	4.1	4.5	5.5	1.5	1.9	3.3	3.2	4.2	5.5
.....	.....	5.2	4.2	8.3	8.8	.....	.....	5.5	3.5	8.3	9.2	.....	.....	5.1	4.2	8.4	9.3
.....	.....	.....	3.9	5.5	7.5	.....	.....	.....	4.3	6.8	9.9	.....	.....	.....	4.4	6.2	8.7
.....	.....	.....	17.7	15.2	15.1	.....	.....	.....	16.0	14.8	14.6	.....	.....	.....	18.8	16.1	16.1
.....	.....	.....	19.7	18.6	19.2	.....	.....	.....	20.1	18.0	17.7	.....	.....	.....	19.7	18.8	18.4
.....	.....	.....	18.5	18.5	18.2	.....	.....	.....	19.1	18.9	18.1	.....	.....	.....	19.5	18.9	18.3
.....	.....	.....	16.1	16.2	15.9	.....	.....	.....	15.0	15.6	15.5	.....	.....	.....	16.9	15.3	14.8
5.1	4.7	9.7	10.1	11.9	17.3	5.2	4.4	9.6	10.1	11.0	17.3	6.0	5.4	9.9	10.9	12.6	17.1
43.3	43.3	54.1	53.5	57.1	56.7	54.0	54.0	57.6	62.6	64.0	63.4	58.0	60.0	72.7	79.3	81.9	80.1
27.5	26.3	26.7	32.4	45.1	46.9	25.0	25.0	27.2	32.7	45.1	44.3	30.0	29.3	30.2	34.9	49.6	48.9
.....	.....	16.8	22.1	29.6	29.6	.....	.....	16.5	21.3	29.6	28.5	.....	.....	17.2	22.0	31.7	30.7
.....	.....	15.1	15.3	23.4	24.4	.....	.....	14.0	15.1	22.6	23.0	.....	.....	14.6	16.0	25.4	26.7
.....	.....	.....	32.0	37.7	41.7	.....	.....	32.8	41.4	41.5	41.5	.....	.....	.....	40.8	45.0	46.0
.....	.....	.....	51.2	56.0	57.9	.....	.....	51.1	52.5	47.4	.....	.....	.....	.....	56.3	50.5	52.1

\* 15-16 ounce can.  
\* Baked weight.

\* 8-ounce package.  
\* 28-ounce package.

\* No. 2 can.



TABLE 7.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD

Article.	Unit.	St. Louis, Mo.						San Francisco, Calif.					
		Jan. 15—				Dec.	Jan.	Jan. 15—				Dec.	Jan.
						15,	15,					15,	15,
		1913	1914	1918	1919	1919.	1920.	1913	1914	1918	1919	1919.	1920.
Sirloin steak.....	Lb.	Cts. 22.7	Cts. 27.3	Cts. 30.0	Cts. 37.0	Cts. 34.8	Cts. 35.7	Cts. 20.3	Cts. 21.0	Cts. 24.3	Cts. 32.8	Cts. 30.1	Cts. 32.3
Round steak.....	Lb.	19.3	24.3	29.6	36.5	34.4	35.4	18.7	19.7	23.7	32.0	29.0	30.7
Rib roast.....	Lb.	16.8	20.5	25.7	29.7	28.1	29.4	20.3	22.0	23.5	30.9	29.3	31.4
Chuck roast.....	Lb.	13.3	15.9	21.5	24.6	20.8	22.9	15.0	15.5	17.3	23.8	21.1	22.5
Plate beef.....	Lb.	9.2	14.1	17.2	20.7	17.4	19.4	12.5	15.0	16.6	22.2	18.1	19.9
Pork chops.....	Lb.	17.7	18.5	30.3	35.1	31.8	32.6	21.8	25.0	36.1	43.4	44.7	44.9
Bacon.....	Lb.	23.0	25.0	50.0	54.6	46.1	46.1	32.8	34.0	53.5	62.2	59.2	59.6
Ham.....	Lb.	25.0	30.0	45.7	56.7	49.5	50.0	30.0	32.0	48.9	58.6	57.7	56.0
Lamb.....	Lb.	17.7	17.1	30.6	34.1	31.9	35.7	17.2	18.0	28.2	34.7	32.3	34.6
Hens.....	Lb.	17.8	17.5	30.1	34.7	31.7	37.8	24.2	23.8	37.5	48.9	49.7	50.1
Salmon (canned).....	Lb.			28.5	32.3	34.2	34.4			25.7	28.0	33.4	34.0
Milk, fresh.....	Qt.	8.0	8.8	13.0	14.0	16.0	16.0	10.0	10.0	12.1	14.0	15.3	15.8
Milk, evaporated (unsweetened).....	(1)				16.3	16.4	16.6				16.4	15.2	15.3
Butter.....	Lb.	40.7	39.8	58.1	76.8	81.7	76.7	41.4	36.1	60.2	72.3	75.5	70.9
Oleomargarine.....	Lb.				37.5	41.0	41.6				39.0	38.2	37.9
Nut margarine.....	Lb.				35.5	34.7	34.9				36.3	35.3	35.6
Cheese.....	Lb.	20.2	21.3	35.2	45.7	41.5	42.0	21.0	21.0	33.5	41.9	44.8	43.2
Lard.....	Lb.	13.1	13.0	28.6	28.9	28.3	28.4	17.6	17.4	33.6	33.7	37.4	36.9
Crisco.....	Lb.				33.3	35.5	35.5				34.8	39.2	38.8
Eggs, strictly fresh.....	Doz.	29.3	38.3	68.4	69.9	80.2	74.0	31.4	47.9	71.0	65.7	83.9	68.9
Eggs, storage.....	Doz.	25.0	30.0	52.5	57.9	59.5	58.4	22.5	41.3	48.8	57.0	64.4	57.3
Bread.....	Lb. <sup>2</sup>	5.0	5.6		10.0	10.0	10.0	5.9	5.2		10.0	11.7	11.4
Flour.....	Lb.	3.1	2.8	6.1	6.3	7.3	7.5	3.3	3.4	6.2	7.0	7.3	7.8
Corn meal.....	Lb.	2.3	2.6	5.9	5.3	5.5	5.6	3.4	3.4	7.1	7.3	6.9	6.8
Rolled oats.....	Lb.				7.0	6.4	8.9				8.4	8.9	10.0
Corn flakes.....	(3)				14.2	13.2	13.2				14.2	14.0	14.1
Cream of Wheat.....	(4)				24.8	28.7	28.0				24.8	26.2	27.5
Macaroni.....	Lb.				18.2	18.1	17.7				13.9	15.6	13.2
Rice.....	Lb.	8.6	8.7	11.2	13.6	17.2	17.3	8.5	8.5	11.9	13.6	16.8	17.5
Beans, navy.....	Lb.			17.9	13.9	11.6	11.6			16.2	13.0	9.8	9.5
Potatoes.....	Lb.	1.7	1.6	3.0	3.1	4.4	5.7	1.6	1.9	2.7	3.0	4.5	5.9
Onions.....	Lb.			4.6	4.2	8.2	9.0			3.3	2.7	6.3	7.1
Cabbage.....	Lb.				5.0	5.9	8.6						
Beans, baked.....	(5)				16.3	15.5	14.7				21.2	18.0	18.2
Corn, canned.....	(6)				16.8	16.5	15.6				19.0	18.5	19.6
Peas, canned.....	(5)				17.3	16.1	16.1				18.6	18.6	18.8
Tomatoes, canned.....	(5)				15.6	14.9	14.9				15.9	13.3	13.3
Sugar, granulated.....	Lb.	5.8	4.7	8.7	10.9	18.6	20.6	5.7	5.3	8.6	10.6	11.9	14.4
Tea.....	Lb.	55.0	55.0	65.0	73.2	72.0	73.9	50.0	50.0	53.9	57.2	58.5	59.5
Coffee.....	Lb.	24.3	24.7	27.4	34.9	45.5	45.8	32.0	32.0	30.9	34.1	44.5	45.4
Prunes.....	Lb.			16.7	18.9	29.3	29.1			14.2	17.5	23.3	22.5
Raisins.....	Lb.			16.5	16.4	24.3	24.0			13.8	14.5	21.9	22.0
Bananas.....	Doz.				34.4	35.6	36.6				35.0	43.0	42.1
Oranges.....	Doz.				46.4	46.0	43.4				49.0	55.2	52.9

<sup>1</sup> 15-16-ounce can.<sup>2</sup> Baked weight.<sup>3</sup> 8-ounce package.

# PRICES AND COST OF LIVING.

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FOR JAN. 15, 1913, 1914, 1918, 1919, 1920, AND DEC. 15, 1919, FOR 19 CITIES—Concluded.

Seattle, Wash.						Washington, D. C.					
Jan. 15—				Dec. 15, 1919.	Jan. 15, 1920.	Jan. 15—				Dec. 15, 1919.	Jan. 15, 1920.
1913	1914	1918	1919			1913	1914	1918	1919		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
22.0	24.0	27.5	36.2	35.7	36.6	25.0	27.5	37.0	51.4	47.1	48.8
20.0	21.2	25.6	35.4	33.7	34.2	21.4	23.4	35.1	48.4	42.8	44.3
18.0	19.4	22.8	31.3	29.2	30.5	20.3	21.0	28.8	40.9	36.2	37.6
15.2	14.9	19.5	26.9	23.1	24.3	15.6	17.0	25.4	34.0	27.8	29.0
11.7	12.8	16.2	21.8	18.5	19.7	10.7	12.4	19.5	23.8	18.0	17.8
23.4	24.0	38.8	47.0	45.0	45.8	20.3	20.3	38.1	45.9	39.8	41.0
30.0	32.1	53.4	62.6	59.4	59.6	23.0	24.5	48.8	55.3	47.9	47.8
28.3	30.0	46.4	57.5	57.2	57.2	28.2	28.6	47.2	58.3	55.2	56.1
18.6	18.7	31.5	36.2	33.1	34.8	19.3	19.7	35.7	44.5	38.7	44.3
24.3	25.0	34.1	44.1	43.4	47.6	20.6	22.4	35.0	45.4	42.9	47.2
9.1	9.6	28.5	30.9	35.3	37.5	9.0	9.0	28.3	34.2	35.2	35.4
44.6	40.9	58.7	15.7	15.0	15.0	43.4	43.0	14.0	17.0	18.0	17.7
			16.0	15.2	15.3				16.7	16.9	17.0
			73.3	76.4	70.3			60.0	78.4	82.6	79.0
			43.3	40.6	39.9				38.2	42.5	44.0
			40.5	36.7	36.7				35.7	35.1	35.0
21.6	22.7	30.6	43.2	43.1	43.6	22.8	23.5	35.5	46.2	42.7	42.8
17.8	17.0	32.7	33.8	38.6	38.0	14.2	14.9	33.6	33.9	34.1	33.5
			35.3	42.0	41.9				33.8	37.5	37.9
39.0	42.5	59.5	73.5	83.4	67.5	33.1	41.0	81.3	78.3	97.4	89.8
32.5	37.5	47.5		66.4	61.0	25.0	35.7	58.4	63.0	64.4	63.3
6.0	5.1		10.6	11.5	11.5	5.7	5.0		10.0	10.1	10.0
2.8	2.9	5.9	6.5	6.9	7.1	3.8	3.7	7.0	6.2	8.1	8.5
3.1	3.4	7.3	7.2	7.3	7.4	2.6	2.5	6.6	5.5	5.5	5.6
			7.9	8.6	9.0				8.9	10.7	11.0
			14.7	14.9	14.9				14.2	14.0	14.0
			27.6	28.8	31.4				24.2	26.6	27.6
			17.9	16.4	17.8				20.6	20.7	21.9
7.7	7.9	10.8	14.5	19.0	19.4	9.2	9.8	12.5	14.2	18.2	18.4
		17.7	14.8	11.6	11.0			20.0	14.5	12.6	12.4
1.0	1.4	1.9	2.3	4.2	5.5	1.6	2.0	3.5	3.1	3.9	5.0
		4.1	4.0	7.7	9.1			5.1	3.3	7.4	8.7
			4.8	6.3	7.8				3.6	6.1	8.8
			23.3	21.8	21.6				18.6	14.8	15.3
			20.4	20.4	20.6				20.7	19.0	18.6
			19.7	20.4	20.8				20.7	18.6	18.4
			19.7	17.5	16.7				17.4	17.4	16.5
6.1	5.8	8.9	10.4	12.8	13.7	5.5	4.9	9.6	10.4	13.6	18.1
50.0	50.0	56.1	62.7	63.6	64.4	57.5	57.5	63.9	75.0	75.9	77.1
28.0	30.0	31.8	35.4	48.1	48.6	28.8	28.8	29.6	33.5	47.5	48.1
		14.3	18.9	28.4	28.1			17.4	22.4	31.9	31.5
		14.9	15.4	24.4	24.6			15.2	15.0	24.3	24.4
			46.1	52.5	55.0				40.5	43.6	45.6
			59.5	58.1	55.6				48.8	49.8	48.2

\* 28-ounce package.

\* No. 2 can.

TABLE 8.—RETAIL PRICES OF THE PRINCIPAL ARTICLES

Article.	Unit.	Bridgeport, Conn.		Butte, Mont.		Charleston, S. C.		Cincinnati, Ohio.		Columbus, Ohio.	
		Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.
		Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
Sirloin steak.....	Lb....	49.9	49.4	32.7	36.4	37.8	38.2	30.6	33.0	34.7	35.8
Round steak.....	Lb....	47.1	46.6	27.9	29.8	37.0	38.3	29.1	31.4	32.7	33.9
Rib roast.....	Lb....	37.0	37.1	25.4	28.8	30.5	31.3	25.7	27.9	29.4	30.1
Chuck roast.....	Lb....	29.1	28.6	19.6	22.8	25.2	26.3	18.7	21.2	25.4	25.9
Plate beef.....	Lb....	14.7	14.6	13.8	16.2	19.0	21.4	17.4	19.7	18.1	18.6
Pork chops.....	Lb....	38.5	36.1	38.3	37.5	43.7	40.0	34.2	34.5	33.1	32.5
Bacon.....	Lb....	55.0	56.6	58.9	60.8	54.3	53.6	42.5	43.5	45.2	45.3
Ham.....	Lb....	59.5	59.5	60.0	61.7	52.0	51.9	48.0	49.0	49.3	48.8
Lamb.....	Lb....	35.1	37.7	27.7	29.3	40.4	40.6	30.6	34.6	33.3	35.0
Hens.....	Lb....	43.6	44.4	31.3	41.3	47.9	47.1	37.0	39.7	34.4	38.0
Salmon (canned).....	Lb....	39.0	37.2	45.0	43.2	34.7	35.4	35.7	35.9	35.0	36.5
Milk, fresh.....	Qt....	18.5	17.5	15.6	15.6	25.0	25.0	15.0	15.0	14.0	14.0
Milk, evaporated (unsweetened) ( <sup>2</sup> ).....	Lb....	17.0	17.0	18.5	18.5	17.2	17.6	16.4	16.5	16.8	17.1
Butter.....	Lb....	71.5	71.6	74.5	72.4	76.4	76.1	77.9	73.5	78.0	73.2
Oleomargarine.....	Lb....	43.3	43.0	.....	.....	45.7	45.3	42.1	41.6	42.7	42.7
Nut margarine.....	Lb....	35.4	35.5	.....	.....	45.7	46.7	34.5	34.5	35.3	35.4
Cheese.....	Lb....	43.2	42.6	46.1	45.4	42.6	43.7	43.7	44.1	43.2	43.2
Lard.....	Lb....	33.8	32.5	39.0	38.5	38.0	37.8	29.8	29.2	32.4	30.9
Crisco.....	Lb....	36.3	36.3	43.5	44.6	38.7	39.1	34.8	34.9	36.7	37.3
Eggs, strictly fresh.....	Doz....	111.0	103.8	90.0	83.5	76.7	78.3	80.5	82.8	85.3	79.2
Eggs, storage.....	Doz....	66.3	67.9	63.9	63.0	58.3	59.3	60.7	60.7	59.6	59.5
Bread.....	Lb <sup>1</sup> ....	10.4	10.4	12.3	12.4	10.0	10.0	9.9	10.1	9.8	9.8
Flour.....	Lb....	8.0	8.3	8.7	8.8	7.8	8.0	7.7	8.1	7.1	7.4
Corn meal.....	Lb....	8.5	8.6	7.8	8.0	5.2	5.0	5.5	5.6	5.9	6.2
Rolled oats.....	Lb....	10.0	10.0	9.1	9.9	10.4	10.6	7.6	9.1	9.5	10.9
Cornflakes.....	( <sup>4</sup> ).....	13.7	13.7	14.6	14.1	14.9	14.9	13.8	14.0	14.2	14.5
Cream of Wheat.....	( <sup>5</sup> ).....	26.8	27.8	31.2	31.6	27.7	29.9	26.5	28.6	27.0	28.2
Macaroni.....	Lb....	23.5	23.4	20.4	20.6	20.7	20.7	16.7	16.7	19.4	19.9
Rice.....	Lb....	17.4	17.8	17.8	18.4	14.7	15.7	17.7	18.4	17.5	18.8
Beans, navy.....	Lb....	12.1	12.0	13.0	13.0	14.7	15.1	10.6	10.6	11.1	11.3
Potatoes.....	Lb....	3.9	4.7	3.9	5.5	4.6	5.9	4.4	5.6	4.3	5.6
Onions.....	Lb....	8.6	9.0	7.6	8.0	9.1	11.0	6.7	8.4	8.6	9.0
Cabbage.....	Lb....	6.2	7.9	5.3	7.8	6.5	8.8	6.0	8.5	6.9	8.8
Beans, baked.....	( <sup>6</sup> ).....	16.4	16.1	22.1	21.7	15.3	14.9	15.9	15.5	17.1	16.2
Corn, canned.....	( <sup>6</sup> ).....	21.2	20.9	18.9	18.4	20.7	20.6	16.5	17.9	16.0	15.5
Peas, canned.....	( <sup>6</sup> ).....	20.9	20.0	19.0	18.5	21.9	22.3	17.1	17.2	16.5	16.3
Tomatoes, canned.....	( <sup>6</sup> ).....	17.6	15.3	18.7	17.3	15.7	15.0	15.4	15.1	15.3	15.3
Sugar, granulated.....	Lb....	11.3	19.1	14.1	14.4	14.0	13.9	18.7	19.1	16.6	18.5
Tea.....	Lb....	61.4	64.0	78.1	80.4	81.3	81.4	75.8	76.7	81.9	83.1
Coffee.....	Lb....	47.2	47.1	58.9	58.5	48.6	50.0	43.0	43.2	49.4	49.1
Prunes.....	Lb....	29.2	28.9	26.5	26.1	29.6	29.6	27.7	27.9	29.6	29.0
Raisins.....	Lb....	23.8	24.4	24.1	26.1	23.0	23.8	24.1	26.4	24.5	26.4
Bananas.....	Doz....	40.0	38.3	50.0	52.5	46.0	48.3	37.7	36.5	40.0	39.2
Oranges.....	Doz....	54.5	51.6	58.8	56.1	49.1	44.6	37.9	36.8	56.7	52.7

<sup>1</sup> The steak for which prices are here quoted is known as "sirloin" in most of the cities included in this report, but in this city it is called "rump" steak.



# PRICES AND COST OF LIVING.

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OF FOOD FOR 31 CITIES ON DEC. 15, 1919, AND JAN. 15, 1920.

Dallas, Tex.		Fall River, Mass.		Houston, Tex.		Indianapolis, Ind.		Jacksonville, Fla.		Kansas City, Mo.	
Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.
<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>
37.2	37.7	158.6	158.8	33.1	36.5	33.9	34.7	38.6	40.8	34.3	35.8
35.3	36.6	46.4	46.6	32.0	36.1	33.2	34.4	34.2	37.8	30.5	31.8
30.6	31.8	34.0	33.8	27.2	30.2	26.0	26.2	27.8	30.3	26.1	26.4
26.8	27.3	26.4	26.9	23.3	26.2	23.5	24.2	22.5	24.7	20.2	20.0
23.4	22.8	.....	.....	18.6	22.5	17.1	17.2	15.7	16.0	14.5	15.6
39.8	39.3	37.0	35.4	39.2	38.3	36.0	33.3	39.7	39.2	33.5	31.5
52.8	57.1	48.8	47.7	60.9	63.1	47.9	47.8	51.6	53.5	53.2	52.8
54.4	53.1	51.1	52.1	50.0	50.0	53.1	52.8	51.7	52.1	52.5	50.7
35.0	42.5	32.1	34.5	37.5	38.8	37.5	41.0	32.9	35.8	29.4	29.8
36.0	34.8	46.0	46.7	37.8	39.5	34.0	37.1	40.4	41.0	34.4	36.7
38.5	39.3	34.4	35.6	33.2	34.6	29.2	30.5	38.0	36.6	34.6	35.3
21.0	21.5	16.0	16.0	21.4	21.8	14.0	14.0	21.0	21.0	16.0	16.0
18.2	18.2	16.6	17.2	16.5	16.8	17.4	17.4	17.3	17.3	17.7	17.5
76.2	74.4	70.9	71.9	75.5	73.9	77.9	72.7	79.7	78.2	80.5	69.6
36.8	37.3	40.8	40.8	43.6	42.8	44.5	44.4	44.4	46.0	41.5	41.5
36.4	37.1	36.2	36.8	37.0	37.6	35.4	35.6	38.5	38.3	35.6	35.5
43.7	44.2	42.9	42.8	41.9	43.1	45.6	45.5	43.5	43.6	43.9	44.2
36.6	36.0	32.8	32.5	34.8	34.6	31.9	31.0	36.0	35.0	35.8	33.8
36.5	37.3	36.6	37.2	33.6	36.2	37.0	36.5	39.6	39.3	39.8	41.1
65.0	74.0	109.8	111.9	82.5	70.3	88.8	81.4	77.5	86.5	84.2	75.1
66.8	61.3	64.1	65.2	61.8	61.6	59.6	59.5	62.7	66.1	63.5	60.4
10.0	12.0	10.0	11.8	9.2	10.2	9.7	9.7	10.0	10.3	10.0	10.4
7.8	8.2	8.3	8.5	7.5	7.9	7.4	7.7	7.9	8.1	7.5	7.7
6.8	6.7	8.4	8.6	6.0	6.1	5.8	5.8	5.5	5.5	7.0	7.1
10.9	11.4	9.8	10.2	9.9	11.2	9.9	10.6	11.3	11.7	12.0	11.9
14.1	14.2	14.5	14.5	14.5	14.5	14.9	14.8	14.8	15.2	15.0	15.0
29.4	31.9	27.6	27.4	27.0	29.9	28.8	29.1	27.8	28.8	27.9	29.5
19.9	19.9	23.5	24.5	19.9	19.7	20.6	20.3	20.4	21.1	18.7	19.4
18.0	18.6	17.8	17.9	15.4	15.6	19.6	19.8	16.5	16.8	18.7	18.9
13.3	13.2	12.1	12.1	12.5	12.1	12.0	11.6	13.9	14.3	12.5	12.6
5.4	7.1	3.8	5.0	4.8	6.5	4.4	5.6	4.8	6.0	4.8	5.8
7.8	8.9	8.9	10.1	7.4	9.2	8.2	8.9	8.4	9.2	9.1	9.8
6.6	9.4	6.2	7.7	7.4	8.3	6.1	8.4	6.9	6.7	7.4	8.8
19.1	19.4	16.8	17.1	18.2	17.3	18.0	17.5	17.9	17.9	17.3	16.9
20.2	20.6	19.9	19.7	18.2	18.5	18.7	17.8	20.5	21.0	16.8	16.1
21.9	23.7	20.7	20.4	19.5	19.1	17.7	17.6	21.7	22.7	16.8	16.3
15.2	15.1	15.9	17.0	14.8	14.6	16.4	15.6	15.3	15.3	15.8	15.4
18.1	20.6	11.5	19.9	15.5	18.8	17.2	19.5	19.1	19.4	13.9	15.8
81.1	85.8	59.0	57.9	66.6	69.1	86.8	88.9	89.5	88.8	78.8	81.8
54.1	54.3	50.1	50.0	45.1	45.7	51.4	50.5	53.3	54.4	47.3	48.2
29.1	29.5	26.1	27.0	28.3	29.1	30.7	32.4	31.3	28.8	29.0	29.9
21.0	23.8	25.2	23.4	21.9	23.8	26.8	28.5	25.6	26.1	26.4	27.0
45.8	41.7	40.6	43.8	38.5	41.0	32.3	30.0	40.0	40.6	52.5	52.5
51.3	48.8	44.4	46.2	48.1	48.3	49.2	46.1	36.7	38.0	56.3	57.5

\* 15-16-ounce can.  
\* Baked weight.

\* 8-ounce package.  
\* 28-ounce package.

\* No. 2 can.

TABLE 8.—RETAIL PRICES OF THE PRINCIPAL ARTICLES

Article.	Unit.	Little Rock, Ark.		Louisville, Ky.		Manchester, N. H.		Memphis, Tenn.	
		Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.
		Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
Sirloin steak.....	Lb...	34.4	37.5	32.7	33.4	<sup>1</sup> 54.8	<sup>1</sup> 54.7	35.4	37.2
Round steak.....	Lb...	32.1	34.7	31.2	32.3	48.2	48.2	32.8	34.8
Rib roast.....	Lb...	27.9	32.1	26.0	27.5	31.0	31.8	28.3	30.8
Chuck roast.....	Lb...	23.2	25.0	22.9	23.9	26.9	27.5	22.5	24.6
Plate beef.....	Lb...	17.1	19.7	19.3	20.5	.....	.....	18.0	19.4
Pork chops.....	Lb...	39.5	37.8	31.6	32.6	36.3	35.5	36.1	35.3
Bacon.....	Lb...	54.7	55.6	47.9	46.6	46.6	46.8	53.6	53.2
Ham.....	Lb...	51.3	52.3	49.3	47.9	47.2	48.4	52.5	53.3
Lamb.....	Lb...	33.8	38.8	29.0	31.3	34.6	37.0	36.7	37.5
Hens.....	Lb...	33.9	35.2	36.8	40.1	45.9	46.7	36.9	39.5
Salmon (canned).....	Lb...	34.0	36.6	32.8	33.0	37.4	38.9	36.2	35.9
Milk, fresh.....	Qt...	20.0	20.0	16.0	16.0	15.0	15.0	19.0	20.0
Milk, evaporated (unsweet- ened).....	( <sup>3</sup> )	18.3	17.7	16.9	16.8	18.1	18.2	17.6	17.8
Butter.....	Lb...	77.4	74.1	77.8	74.9	79.9	80.7	79.5	75.7
Oleomargarine.....	Lb...	44.0	43.7	44.3	44.3	43.5	44.3	42.2	40.6
Nut margarine.....	Lb...	38.5	37.7	34.7	34.6	34.3	34.8	40.3	39.4
Cheese.....	Lb...	43.4	43.3	42.4	43.4	42.9	43.2	43.5	44.1
Lard.....	Lb...	37.2	37.6	31.2	30.9	36.1	35.2	34.2	33.9
Crisco.....	Lb...	39.1	39.4	35.0	34.8	37.2	37.4	36.9	37.6
Eggs, strictly fresh.....	Doz...	81.0	75.6	81.9	80.0	108.2	95.8	86.2	78.2
Eggs, storage.....	Doz...	66.4	65.9	60.3	61.3	64.8	64.9	66.2	59.8
Bread.....	Lb. <sup>4</sup>	10.0	10.0	10.0	10.0	9.5	10.5	10.0	10.0
Flour.....	Lb...	7.5	7.9	7.5	7.9	8.2	8.6	7.6	8.0
Corn meal.....	Lb...	5.9	5.6	5.2	5.2	7.3	7.7	5.2	5.4
Rollod oats.....	Lb...	11.0	11.0	9.8	10.9	9.6	10.5	11.1	10.9
Corn flakes.....	( <sup>5</sup> )	14.7	14.6	14.0	13.8	14.9	14.9	14.3	14.3
Cream of Wheat.....	( <sup>6</sup> )	26.9	28.1	26.5	27.9	26.8	28.0	27.1	27.6
Maccaroni.....	Lb...	19.0	18.2	17.3	19.5	24.3	24.7	19.3	19.6
Rice.....	Lb...	16.9	17.1	18.1	18.2	17.7	18.1	17.1	17.1
Beans, navy.....	Lb...	12.6	13.1	11.9	11.8	12.1	12.0	13.0	12.5
Potatoes.....	Lb...	4.5	5.7	3.8	4.8	3.5	4.3	4.9	6.1
Onions.....	Lb...	8.9	9.7	7.3	8.7	9.1	9.6	8.3	9.1
Cabbage.....	Lb...	7.7	9.0	6.3	8.2	5.1	7.5	6.2	8.6
Beans, baked.....	( <sup>7</sup> )	16.9	17.0	15.9	15.9	17.9	18.3	18.4	17.6
Corn, canned.....	( <sup>7</sup> )	18.1	17.6	17.9	17.5	20.9	21.9	18.6	18.5
Peas, canned.....	( <sup>7</sup> )	18.9	19.0	17.7	17.5	20.8	21.9	18.6	18.4
Tomatoes, canned.....	( <sup>7</sup> )	14.8	14.9	15.3	14.3	17.0	15.0	15.8	15.0
Sugar, granulated.....	Lb...	22.4	22.3	18.1	20.6	11.5	17.8	21.8	22.0
Tea.....	Lb...	85.8	87.3	79.8	85.3	62.1	63.2	87.7	89.4
Coffee.....	Lb...	51.4	53.6	48.7	47.8	51.5	51.6	53.3	51.6
Prunes.....	Lb...	27.7	27.8	29.1	28.0	29.8	29.3	33.9	33.4
Raisins.....	Lb...	26.5	25.1	23.7	24.0	25.3	26.0	24.4	24.1
Bananas.....	Doz...	38.6	35.5	37.1	40.4	40.0	42.5	41.4	43.5
Oranges.....	Doz...	50.9	53.1	42.7	38.1	55.8	53.9	44.0	44.1

<sup>1</sup> The steak for which prices are here quoted is known as "porterhouse" in most of the cities included in this report, but in this city it is called "sirloin" steak.

# PRICES AND COST OF LIVING.

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OF FOOD FOR 31 CITIES ON DEC. 15, 1919, AND JAN. 15, 1920—Continued.

Minneapolis, Minn.		Mobile, Ala.		Newark, N. J.		New Haven, Conn.		Norfolk, Va.		Omaha, Nebr.	
Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.
<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>
32.2	33.2	33.6	35.0	44.0	44.9	52.2	52.6	43.5	42.9	36.1	36.1
28.1	30.0	32.7	34.2	44.6	44.8	46.3	47.1	39.2	37.8	32.9	32.8
26.5	29.0	30.0	31.0	35.6	36.4	37.3	37.9	35.9	35.8	26.2	26.1
20.8	21.7	23.6	25.4	27.4	27.9	30.5	31.6	27.3	28.2	21.9	21.6
14.2	15.3	19.5	19.9	18.0	17.7	.....	.....	17.9	19.7	15.3	15.7
35.0	32.9	45.0	42.3	38.6	37.1	36.7	35.4	39.2	37.4	35.1	32.6
53.8	54.2	57.5	56.9	46.0	45.8	53.8	52.1	46.8	48.6	53.9	53.3
50.0	52.1	52.0	53.8	50.0	35.0	55.4	55.3	42.5	45.0	54.6	54.1
28.2	29.5	34.3	35.0	36.5	38.7	33.3	39.4	35.8	39.0	31.8	32.9
32.0	37.3	42.1	40.0	40.7	42.5	43.7	44.6	43.9	47.1	33.6	37.2
44.2	43.8	38.8	40.2	38.0	39.3	38.1	38.1	34.0	35.3	38.2	38.8
13.0	13.0	24.0	23.5	18.0	18.0	16.0	16.0	21.0	21.0	16.4	15.9
18.0	17.9	17.7	17.8	15.7	15.8	16.8	16.8	16.6	16.4	17.8	17.8
75.0	69.4	78.5	78.3	82.6	76.3	72.5	72.3	78.0	78.1	79.1	72.8
41.9	42.2	44.9	44.5	42.8	42.5	43.8	44.0	49.0	48.4	44.4	44.7
33.1	33.1	40.4	40.9	35.5	35.2	36.1	35.6	39.3	38.3	35.9	35.5
41.9	41.4	44.3	43.8	44.3	44.6	42.7	42.9	42.4	43.0	44.4	43.4
33.9	32.6	36.5	35.8	35.3	34.2	34.4	33.0	37.1	36.4	36.8	35.7
38.6	38.0	38.2	37.9	36.1	36.0	36.0	35.4	38.2	38.4	39.0	38.6
96.3	73.6	84.3	77.0	98.4	96.8	108.6	98.7	85.2	78.5	86.7	72.3
61.9	58.6	65.1	62.4	65.9	65.2	64.4	64.9	64.5	62.9	65.4	59.3
9.8	10.8	9.6	10.0	9.8	10.0	10.6	10.9	10.0	10.0	10.0	10.0
8.1	8.5	7.3	8.0	7.9	8.1	8.1	8.4	7.8	8.2	7.3	7.8
6.5	6.7	6.1	6.1	7.6	7.9	7.8	7.7	5.7	6.0	6.7	6.4
7.3	8.2	11.2	11.6	9.2	8.8	9.4	10.1	10.4	11.0	9.0	11.2
14.6	14.9	14.7	14.5	12.3	12.3	14.1	14.0	14.5	14.7	15.0	15.0
29.8	30.9	29.6	29.6	26.0	27.3	27.6	28.2	27.6	27.1	28.8	29.4
18.7	17.9	18.9	19.7	21.9	22.2	21.0	21.7	20.0	21.3	20.7	20.6
19.0	19.1	16.5	16.7	17.1	17.6	18.0	17.9	19.1	19.6	18.2	18.4
12.0	12.2	14.0	13.6	12.1	11.9	12.3	11.7	13.2	12.8	13.3	12.6
3.7	5.1	5.0	4.4	4.5	5.7	3.8	4.6	4.2	5.3	4.4	5.7
7.9	9.3	8.4	9.0	9.2	9.3	8.9	9.4	8.7	9.0	9.0	9.9
5.6	7.3	5.7	7.1	6.0	7.6	6.6	8.2	5.5	7.5	7.1	8.2
18.3	18.5	17.8	17.4	14.7	14.5	17.9	17.8	14.2	14.2	21.1	20.4
17.7	17.9	19.8	19.7	20.4	19.5	21.6	20.8	20.6	20.5	18.3	18.2
17.8	17.7	18.9	18.8	19.8	18.8	21.9	21.9	21.6	22.0	19.3	18.9
16.7	16.2	15.2	15.2	15.3	14.9	16.1	15.5	17.5	15.3	17.4	17.3
14.0	18.9	21.3	19.2	11.2	16.6	12.1	18.6	12.9	17.6	18.2	19.0
64.1	62.8	75.0	77.4	56.4	58.2	63.5	63.1	83.1	85.9	78.6	77.5
54.2	53.1	46.2	44.5	45.9	46.1	51.4	50.4	52.0	52.8	53.6	54.9
31.2	31.6	28.1	27.0	26.3	26.5	29.6	29.6	30.7	30.6	30.4	29.0
21.8	22.9	25.4	28.6	22.2	22.8	24.9	25.4	23.5	23.1	26.4	26.3
47.5	49.2	30.6	29.6	41.0	41.8	37.5	36.2	40.0	41.0	47.5	50.0
56.6	58.5	42.9	47.1	54.2	52.3	58.7	53.8	50.2	48.6	55.0	55.3

2 Whole ham.  
3 15-16-ounce can.

4 Baked weight.  
5 8-ounce package.

6 28-ounce package.  
7 No. 2 can.



TABLE 8.—RETAIL PRICES OF THE PRINCIPAL ARTICLES

Article.	Unit.	Peoria, Ill.		Portland, Me.		Portland, Oreg.		Providence, R. I.	
		Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.
		Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
Sirloin steak.....	Lb...	33.3	33.1	<sup>1</sup> 56.3	<sup>1</sup> 55.8	31.2	32.8	66.7	66.4
Round steak.....	Lb...	30.7	32.1	45.7	45.9	29.8	31.0	54.3	52.5
Rib roast.....	Lb...	23.7	25.3	30.4	31.2	27.8	28.9	42.6	42.1
Chuck roast.....	Lb...	21.5	22.0	23.7	24.3	22.2	23.6	34.9	33.1
Plate beef.....	Lb...	15.4	16.3			16.5	17.6		
Pork chops.....	Lb...	33.9	32.7	40.4	36.8	42.1	40.9	39.8	40.7
Bacon.....	Lb...	50.2	50.9	48.2	51.5	55.6	54.4	49.3	49.0
Ham.....	Lb...	53.3	52.2	51.6	48.6	53.8	52.8	60.6	57.5
Lamb.....	Lb...	31.3	30.9	34.8	35.9	31.9	33.8	40.5	44.0
Hens.....	Lb...	32.4	36.3	44.4	46.1	41.1	43.8	47.4	47.0
Salmon (canned).....	Lb...	35.3	35.1	36.4	36.6	40.8	41.2	41.0	39.9
Milk, fresh.....	Qt...	14.3	14.3	15.0	15.0	15.9	15.8	17.0	17.0
Milk, evaporated (unsweet- ened).....	( <sup>2</sup> )	17.8	17.3	17.5	17.6	17.4	17.0	17.6	17.5
Butter.....	Lb...	76.3	70.7	78.4	76.3	76.1	71.0	76.6	74.7
Oleomargarine.....	Lb...	44.7	44.0	44.4	43.8	42.2	42.2	40.8	42.5
Nut margarine.....	Lb...	35.6	35.8	35.6	35.3	38.7	39.0	35.2	35.2
Cheese.....	Lb...	44.3	44.1	44.7	44.8	44.1	44.1	42.9	42.8
Lard.....	Lb...	34.6	32.8	35.1	33.2	40.0	40.0	34.6	32.8
Crisco.....	Lb...	38.3	39.1	38.0	36.6	42.7	42.7	37.2	36.9
Eggs, strictly fresh.....	Doz...	84.2	76.8	105.0	87.2	87.1	72.9	107.8	100.1
Eggs, storage.....	Doz...	62.7	62.0	67.9	66.6	67.5	65.0	64.8	64.9
Bread.....	Lb. <sup>3</sup>	10.0	10.0	11.0	11.0	10.6	10.6	10.7	11.4
Flour.....	Lb...	8.3	8.8	8.0	8.3	6.8	7.1	8.8	9.0
Corn meal.....	Lb...	6.2	6.4	6.8	6.7	7.7	7.7	6.5	6.3
Rolled oats.....	Lb...	9.4	11.4	7.9	8.3	9.1	10.1	9.8	9.8
Corn flakes.....	( <sup>4</sup> )	14.7	14.9	14.2	14.2	14.6	14.8	14.1	14.1
Cream of Wheat.....	( <sup>5</sup> )	29.4	30.0	28.0	29.2	31.3	33.6	27.3	28.8
Macaroni.....	Lb...	20.1	18.8	22.9	23.1	18.7	17.5	22.2	21.7
Rice.....	Lb...	18.2	18.2	16.7	17.5	17.9	18.9	17.8	18.4
Beans, navy.....	Lb...	12.1	12.1	12.1	12.0	11.0	11.4	11.7	11.6
Potatoes.....	Lb...	4.0	5.2	3.8	4.7	4.0	5.2	4.0	4.8
Onions.....	Lb...	7.7	9.9	8.8	9.6	6.4	7.8	8.8	9.6
Cabbage.....	Lb...	6.4	9.1	4.8	6.6	5.6	6.8	6.0	8.2
Beans, baked.....	( <sup>6</sup> )	18.1	18.5	19.3	19.0	22.0	21.6	16.8	16.8
Corn, canned.....	( <sup>6</sup> )	17.4	17.3	19.6	19.5	22.3	22.1	20.5	19.9
Peas, canned.....	( <sup>6</sup> )	18.3	18.5	21.1	20.3	22.9	22.1	20.4	20.9
Tomatoes, canned.....	( <sup>6</sup> )	15.5	15.2	19.0	19.2	18.9	18.7	17.8	15.7
Sugar, granulated.....	Lb...	14.0	18.7	11.3	13.0	12.5	12.9	11.6	21.3
Tea.....	Lb...	73.0	73.7	62.6	63.2	63.1	64.2	60.5	61.2
Coffee.....	Lb...	47.2	48.5	50.7	50.7	50.7	50.7	52.7	52.3
Prunes.....	Lb...	31.0	32.2	28.2	28.1	26.2	25.5	28.6	28.4
Raisins.....	Lb...	24.9	24.4	25.0	25.4	21.8	24.2	23.2	25.3
Bananas.....	Doz...	35.0	40.0	37.5	40.0	45.0	45.0	41.7	42.5
Oranges.....	Doz...	52.7	54.3	61.3	56.6	59.2	55.8	61.3	61.2

<sup>1</sup> The steak for which prices are here quoted is known as "porterhouse" in most of the cities included in this report, but in this city it is called "sirloin" steak.

# PRICES AND COST OF LIVING.

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OF FOOD FOR 31 CITIES ON DEC. 15, 1919, AND JAN. 15, 1920—Concluded.

Richmond, Va.		Rochester, N. Y.		St. Paul, Minn.		Salt Lake City, Utah.		Scranton, Pa.		Springfield, Ill.	
Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.	Dec. 15, 1919.	Jan. 15, 1920.
<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>
41.0	42.9	38.1	38.9	32.8	36.1	31.5	33.4	42.5	44.6	32.1	35.5
37.6	39.1	34.4	35.6	28.8	31.2	28.4	30.1	36.8	38.7	32.0	33.9
34.5	33.6	30.5	31.2	28.8	30.1	24.8	26.5	33.7	35.4	22.9	24.6
27.3	28.6	27.3	27.4	22.9	24.4	20.3	22.0	27.4	27.8	20.1	21.8
22.5	23.1	18.4	19.1	15.0	15.9	15.4	16.1	17.4	18.1	16.0	17.8
39.5	37.6	38.9	38.1	34.0	33.1	40.4	40.0	42.6	40.1	35.5	34.4
46.6	43.2	42.0	41.8	46.8	48.2	52.3	52.9	53.6	54.3	45.4	45.5
46.7	46.5	48.5	49.7	48.1	49.7	53.3	51.1	47.5	52.6	48.9	48.3
39.3	40.8	30.2	36.4	27.4	32.0	26.8	30.4	40.7	39.5	31.9	37.8
39.7	46.4	40.8	42.9	31.2	36.9	33.1	35.1	45.5	47.2	31.5	32.9
27.5	27.8	37.1	37.6	37.7	38.9	37.1	37.1	38.8	40.5	35.8	36.9
16.7	16.5	14.8	15.0	13.0	13.0	12.5	12.5	15.0	15.0	16.7	16.7
17.3	17.5	17.3	17.6	17.6	17.7	16.0	15.8	16.4	16.3	18.6	18.4
82.6	81.1	75.5	74.4	74.1	68.4	76.8	67.6	73.2	73.2	78.9	70.8
43.3	44.6	44.4	44.4	41.2	41.0	42.0	42.0	45.3	44.7	44.9	44.5
38.1	37.4	34.8	34.7	34.6	34.9	38.5	38.3	36.1	36.0	36.3	35.6
43.7	44.1	42.0	41.8	42.6	42.5	42.7	42.6	41.4	41.8	44.8	44.6
35.7	35.4	34.8	34.2	34.5	33.8	39.6	37.5	36.5	35.2	35.9	33.6
38.5	38.7	36.4	36.1	39.7	40.5	44.5	44.3	38.4	38.7	40.6	40.6
83.1	78.3	102.5	91.8	94.5	72.7	83.8	72.7	108.3	95.5	82.0	78.1
66.3	63.5	62.7	62.6	62.3	60.3	67.0	61.7	63.5	65.3	65.2	65.3
10.9	10.9	10.0	10.2	9.2	10.5	10.3	10.6	10.0	10.5	10.0	10.0
8.1	8.4	8.0	8.6	8.2	8.7	6.5	6.9	8.3	8.8	8.1	8.7
6.2	6.1	7.3	7.0	6.6	6.4	7.4	7.4	9.1	8.5	6.4	6.4
10.5	11.2	7.5	7.5	7.8	8.8	9.1	9.9	10.5	11.1	9.9	11.3
14.5	14.7	13.9	13.9	14.5	14.7	14.8	14.6	14.2	14.1	15.0	15.0
27.8	27.7	27.8	28.6	30.2	30.7	29.7	30.6	26.4	27.9	28.5	30.1
18.6	18.9	20.8	20.2	19.5	19.5	19.5	20.1	22.2	23.0	19.5	19.0
18.9	19.3	18.4	18.4	18.8	18.6	17.3	17.7	18.6	18.9	19.3	19.2
13.3	13.5	12.1	12.1	11.8	11.9	13.4	13.2	14.5	14.5	12.8	12.6
4.8	5.4	3.8	4.7	3.5	4.5	4.0	5.2	3.9	4.8	4.4	5.7
8.6	8.8	7.6	9.0	7.8	8.8	7.0	7.8	7.7	9.3	7.9	9.7
6.6	9.1	4.7	6.8	5.1	6.7	6.3	8.8	4.4	6.7	6.0	8.0
14.3	14.5	14.8	14.5	19.3	19.2	20.0	19.6	16.1	16.3	19.2	17.6
19.4	19.4	19.6	19.9	17.7	17.7	17.8	18.4	19.4	19.3	17.0	17.0
22.0	21.9	19.7	19.8	17.4	17.2	18.2	17.9	18.8	18.3	18.7	18.8
18.8	18.7	16.3	16.0	16.0	15.0	16.9	16.2	17.9	15.5	16.7	16.0
11.9	19.9	11.9	18.4	14.4	18.2	12.8	13.8	12.4	19.4	14.7	22.2
84.3	83.8	64.7	63.5	65.0	67.7	79.2	79.9	67.5	68.1	84.2	85.8
46.6	49.8	46.3	47.6	51.0	51.1	57.8	58.3	49.5	50.3	51.2	51.1
29.5	29.6	28.7	29.8	30.4	30.0	27.9	27.3	28.5	28.9	33.1	30.2
23.6	23.9	23.4	25.7	24.4	24.6	24.8	25.0	24.6	25.1	25.0	25.0
45.5	45.0	41.6	42.3	56.7	60.0	47.0	56.7	34.3	37.3	50.0	36.3
43.8	44.3	49.8	54.1	58.1	60.0	53.8	53.9	55.9	52.9	51.9	52.7

<sup>a</sup> 15-16-ounce can.

<sup>b</sup> Baked weight.

<sup>c</sup> 8-ounce package.

<sup>d</sup> 28-ounce package.

<sup>e</sup> No. 2 can.

## Comparison of Retail Food Costs in 50 Cities.

TABLE 9 shows for 39 cities the percentage of increase or decrease in the retail cost of 22 food articles<sup>1</sup> combined, in January, 1920, compared with the average cost in the year 1913 and in January and December, 1919. For 11 other cities, comparisons are given for the one-year and one-month periods. These cities have been scheduled by the Bureau at different dates since 1913.

The average family expenditure is based on the prices sent to the Bureau each month by retail dealers, and on the average family consumption of these articles in each city.

The amounts given as the expenditures in January and December, 1919, and in January, 1920, represent the amounts necessary to buy a year's supply of these 22 food articles when purchased at the average retail prices charged in the months specified. This method makes it easier to note the increase over the year 1913. The year 1913 has been selected for the comparison because it was the last year before the war when prices were normal.

No attempt should be made in this table to compare one city with another, as the average number of persons in the family varies from city to city, and these 22 food articles represent a varying proportion of the entire food budgets according to locality. This table is intended to show merely comparisons in the retail cost of these 22 food articles for each city.

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<sup>1</sup> See first paragraph of footnote on page 26; lamb is not included.



TABLE 9.—RETAIL COST OF 22 FOOD ARTICLES,<sup>1</sup> COMBINED, IN JANUARY, 1920, COMPARED WITH THE COST IN JANUARY AND DECEMBER, 1919, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES.

City.	Average family expenditure for 22 food articles, combined.				Percentage increase January, 1920, compared with—		
	1913	1919		January, <sup>2</sup> 1920.	1913	January, 1919.	December, 1919.
		January. <sup>2</sup>	December. <sup>2</sup>				
Atlanta.....	\$361.00	\$683.04	\$729.80	\$724.46	101	6	3
Baltimore.....	335.15	679.48	668.08	684.98	104	1	3
Birmingham.....	377.53	732.08	787.24	777.64	106	6	1
Boston.....	388.16	692.87	733.87	757.14	95	9	3
Bridgeport.....		676.39	708.17	725.41		7	3
Buffalo.....	318.15	623.35	640.30	660.64	108	6	3
Butte.....		481.06	493.92	517.15		8	5
Charleston, S. C.....	348.60	692.50	713.67	724.03	108	5	1
Chicago.....	336.48	614.75	666.53	679.64	102	11	2
Cincinnati.....	338.26	620.02	656.65	681.56	101	10	4
Cleveland.....	354.01	653.59	699.25	696.08	97	7	1
Columbus.....		637.73	667.42	680.65		7	2
Dallas.....	395.41	739.01	759.17	796.04	101	8	5
Denver.....	247.36	461.63	474.56	470.40	90	2	1
Detroit.....	335.02	635.69	688.93	706.36	111	11	3
Fall River.....	375.51	681.49	712.94	752.38	100	10	6
Houston.....		709.52	738.62	768.10		8	4
Indianapolis.....	345.23	629.45	678.18	684.82	98	9	1
Jacksonville.....	377.10	695.89	708.50	734.17	95	5	4
Kansas City, Mo.....	340.12	637.37	676.17	672.43	98	6	1
Little Rock.....	390.14	707.97	754.02	769.63	97	9	2
Los Angeles.....	284.84	470.14	497.61	508.54	79	8	2
Louisville.....	363.85	687.88	696.32	715.05	97	4	3
Manchester.....	366.01	680.18	704.95	725.84	98	7	3
Memphis.....	368.46	703.83	754.27	741.77	101	5	2
Milwaukee.....	327.25	621.10	662.68	675.66	106	9	2
Minneapolis.....	319.98	573.60	657.41	667.21	109	16	1
Mobile.....		720.15	780.03	766.52		6	2
Newark.....	364.92	672.50	685.60	704.77	93	6	3
New Haven.....	376.96	701.09	718.31	735.92	95	5	2
New Orleans.....	369.29	705.09	719.88	750.76	103	6	4
New York.....	355.36	666.48	708.30	723.48	104	9	2
Norfolk.....		681.07	697.29	719.72		6	3
Omaha.....	334.52	625.54	696.01	689.47	106	10	1
Peoria.....		609.65	654.83	672.31		10	3
Philadelphia.....	352.19	666.89	689.15	704.83	100	6	2
Pittsburgh.....	350.35	668.46	691.77	710.29	103	6	3
Portland, Me.....		687.27	705.56	698.21		2	1
Portland, Oreg.....	266.03	463.26	488.03	490.72	84	6	1
Providence.....	380.85	716.73	761.77	783.19	106	9	3
Richmond.....	346.40	683.84	694.90	717.05	107	5	3
Rochester.....		627.87	655.74	677.68		8	3
St. Louis.....	326.36	623.76	667.10	687.41	111	10	3
St. Paul.....		598.36	650.90	659.58		10	1
Salt Lake City.....	261.87	448.88	466.37	468.81	79	4	1
San Francisco.....	271.48	467.25	493.51	506.36	87	8	3
Seranton.....	335.98	655.88	687.26	711.37	106	8	4
Seattle.....	265.35	477.73	500.15	504.38	90	6	1
Springfield, Ill.....		629.43	671.67	699.02		11	4
Washington, D. C.....	354.82	699.23	721.54	739.74	108	6	3

<sup>1</sup> See first paragraph of footnote on page 26; lamb is not included.

<sup>2</sup> Cost of year's supply at prices charged in specified months.

<sup>3</sup> Decrease.

As shown in Table 9 the average family expenditure for 22 articles of food increased during the month from December 15 to January 15 in 41 cities and decreased in 9 cities. In Memphis and Mobile the decrease was 2 per cent and in Atlanta, Birmingham, Cleveland, Denver, Kansas City, Omaha, and Portland, Oreg., the decrease was 1 per cent. In each of 7 cities the expenditure increased 1 per cent; in 9 cities, 2 per cent; in 16 cities, 3 per cent; and in 6 cities, 4 per cent.

In Butte and Dallas, the increase was 5 per cent; and in Fall River, 6 per cent.

During the year period from January, 1919, to January, 1920, the greatest increase, or 16 per cent, was shown in Minneapolis. The next largest increase, or 11 per cent, was in Chicago, Detroit, and Springfield. The other cities showed increases ranging from 1 per cent in Baltimore to 10 per cent in Cincinnati, Fall River, Omaha, Peoria, St. Louis, and St. Paul. As compared with the average expenditure in the year 1913, the following cities showed an increase of 100 per cent and over: Fall River, 100 per cent; Atlanta, Cincinnati, Dallas and Memphis, 101 per cent each; Chicago, 102 per cent; New Orleans and Pittsburgh, 103 per cent each; Baltimore and New York, 104 per cent each; Birmingham, Milwaukee, Omaha, Providence and Scranton, 106 per cent each; Richmond, 107 per cent; Buffalo, Charleston, and Washington, 108 per cent each; Minneapolis, 109 per cent; and Detroit and St. Louis, 111 per cent each.

#### Retail Prices of Coal.<sup>1</sup>

TABLE 10 shows the average retail prices of coal on January 15 and July 15 of each year, 1913 to 1919, inclusive, and on January 15, 1920, by cities. The prices are those quoted by the retail trade for household use.

In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these coals form any considerable portion of the sales for household use.

The prices shown for bituminous coal are averages made on the several kinds. The coal dealers in each city were asked to quote prices on the kinds of bituminous coal usually sold for household use.

The prices quoted are for coal delivered to consumers but do not include charges for storing the coal in cellar or coal bin where an extra handling is necessary.

Prices are shown for coal only in the cities in which prices are scheduled for food and are shown for the years when food prices were obtained.

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<sup>1</sup> Prices of coal are secured semiannually and published in the March and September issues of the MONTHLY LABOR REVIEW.

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TABLE 10.—RETAIL PRICES PER TON OF 2,000 POUNDS OF COAL, FOR HOUSEHOLD USE, ON JAN. 15 AND JULY 15 OF EACH YEAR, 1913 TO 1919, INCLUSIVE, AND JANUARY 15, 1920, BY CITIES.

City, and kind of coal.	1913		1914		1915		1916		1917 <sup>1</sup>		1918		1919		1920
	January.	July.	January.	July.	January.	July.	January.	July.	January.	July.	January.	July.	January.	July.	January.
Atlanta, Ga.: Pennsylvania anthracite— Stove.....															
Bituminous.....	\$5.875	\$4.833	\$5.295	\$5.083	\$5.250	\$4.575	\$5.050	\$4.500	\$7.000	\$7.778	\$8.029	\$14.667	14.667	\$9.050	
Baltimore, Md.: Pennsylvania anthracite— Stove.....	\$7.700	\$7.240	\$7.700	\$7.280	\$7.620	\$7.138	\$7.650	\$7.800	\$8.160	\$9.600	\$11.983	\$11.750	\$11.750	\$12.500	
Bituminous.....	\$7.930	\$7.490	\$7.950	\$7.520	\$7.870	\$7.363	\$7.880	\$7.950	\$8.310	\$9.750	\$12.042	\$11.850	\$11.850	\$12.600	
Birmingham, Ala.: Bituminous.....													\$7.540	\$7.500	
Bituminous.....	4.217	4.011	4.228	3.833	4.090	3.646	3.913	3.644	5.080	5.616	6.741	7.286	7.286	7.496	
Boston, Mass.: Pennsylvania anthracite— Stove.....	8.250	7.500	8.000	7.500	7.750	7.500	8.000	8.000	9.500	9.850	12.000	12.000	12.000	12.750	
Bituminous.....	8.250	7.750	8.250	7.750	8.000	7.750	8.250	8.000	9.500	9.850	12.000	12.000	12.000	12.750	
Bridgeport, Conn.: Pennsylvania anthracite— Stove.....									10.000	10.500	12.370	11.750	12.500	12.500	
Bituminous.....									10.000	10.500	12.370	11.750	12.500	12.500	
Buffalo, N. Y.: Pennsylvania anthracite— Stove.....	6.750	6.542	6.817	6.650	6.850	6.650	6.850	7.010	7.600	8.830	10.400	10.700	10.880	10.880	
Bituminous.....	6.992	6.800	7.067	6.900	7.100	6.900	7.100	7.260	7.850	8.830	10.500	10.800	10.900	10.900	
Butte, Mont.: Bituminous.....															
Charleston, S. C.: Pennsylvania anthracite— Stove.....	\$8.375	\$7.750	\$7.750	\$7.750	\$7.750	\$7.750	\$7.750	\$7.875	\$8.750	\$12.275	(3)	\$13.400	\$13.400	\$13.400	
Bituminous.....	\$8.500	\$8.000	\$8.250	\$8.250	\$8.250	\$8.250	\$8.250	\$8.375	\$9.250	\$12.475	(3)	\$13.500	\$13.500	\$13.500	
Chicago, Ill.: Pennsylvania anthracite— Stove.....	8.000	7.800	8.080	7.900	8.100	7.900	8.100	8.240	9.570	10.350	11.808	12.200	12.580	12.580	
Bituminous.....	8.250	8.050	8.330	8.150	8.350	8.150	8.350	8.490	9.670	10.358	12.016	12.300	12.680	12.680	
Bituminous.....	4.969	4.650	5.000	4.850	5.068	4.708	4.938	4.800	7.083	6.671	6.700	7.017	8.020	8.020	

<sup>1</sup> Prices not secured by Bureau in July, 1917.

<sup>2</sup> Per ton of 2,240 pounds.

<sup>3</sup> Zoned out by Fuel Administration.



TABLE 10.—RETAIL PRICES PER TON OF 2,000 POUNDS OF COAL, FOR HOUSEHOLD USE, ON JAN. 15 AND JULY 15 OF EACH YEAR, 1913 TO 1919, INCLUSIVE, AND JANUARY 15, 1920, BY CITIES—Continued.

City, and kind of coal.	1913		1914		1915		1916		1917 <sup>1</sup>		1918		1919		1920
	January.	July.	January.	July.	January.	July.	January.	July.	January.	July.	January.	July.	January.	July.	January.
Cincinnati, Ohio:															
Pennsylvania anthracite—															
Stove.....	\$8.250	\$7.500	\$8.000	\$7.917	\$7.917	\$7.667	\$8.000	\$7.875	\$10.000	\$9.500	\$11.660	\$12.000	\$12.000		\$12.500
Chestnut.....	8.750	7.750	8.250	8.167	8.167	7.833	8.083	8.125	10.125	9.500	.....	12.000	12.000		12.667
Bituminous.....	3.500	3.375	3.750	3.500	3.500	3.500	3.688	3.500	5.500	6.098	6.725	6.139	6.139		6.739
Cleveland, Ohio:															
Pennsylvania anthracite—															
Stove.....	7.500	7.250	7.500	7.500	7.650	7.400	7.650	7.850	9.688	9.825	.....	11.538	11.538		12.300
Chestnut.....	7.750	7.500	7.750	7.750	7.900	7.650	7.900	8.100	10.000	9.575	.....	11.175	11.650		12.233
Bituminous.....	4.143	4.143	4.400	4.571	4.643	4.607	4.643	4.946	8.227	6.901	6.443	7.710	7.710		7.911
Columbus, Ohio:															
Pennsylvania anthracite—															
Chestnut.....	.....	.....	.....	.....	.....	.....	.....	.....	6.400	5.943	6.179	6.088	6.088		12.000
Dallas, Tex.:															
Pennsylvania anthracite—															
Chestnut.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		6.513
Arkansas anthracite—															
Egg.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		22.000
Bituminous.....	8.250	7.214	7.929	7.150	7.545	8.250	9.000	8.375	11.500	14.334	14.250	15.800	14.500		18.500
Denver, Colo.:															
Colorado anthracite—															
Stove, 3 and 5 mixed.....	8.500	8.500	10.500	8.929	9.214	9.071	9.333	8.786	9.600	11.750	12.325	13.150	13.150		14.000
Furnace, 1 and 2 mixed.....	8.875	9.000	11.000	9.071	9.286	9.071	9.333	9.071	9.900	11.750	12.325	12.650	12.650		13.500
Bituminous.....	5.250	4.875	6.474	5.300	5.641	5.192	5.250	5.019	6.000	7.598	7.995	8.148	8.348		8.908
Detroit, Mich.:															
Pennsylvania anthracite—															
Stove.....	8.000	7.450	8.000	7.500	7.938	7.500	7.950	8.000	9.750	9.890	10.150	11.890	11.890		12.659
Chestnut.....	8.250	7.650	8.250	7.750	8.188	7.750	8.200	8.250	9.800	10.080	10.520	11.710	11.980		12.750
Bituminous.....	5.200	5.200	5.200	5.188	5.179	5.237	5.237	5.611	7.583	8.267	8.180	7.732	7.938		8.781
Fall River, Mass.:															
Pennsylvania anthracite—															
Stove.....	8.250	7.425	7.750	7.688	8.000	7.750	8.750	8.438	11.000	10.750	11.000	12.700	12.500		13.000
Chestnut.....	8.250	7.613	8.000	7.688	8.000	7.750	8.750	8.438	11.000	10.750	11.000	12.383	12.250		12.750
Bituminous.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10.250	9.500		10.000
Houston, Tex.:															
Bituminous.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9.000	.....	10.000	10.000		12.000

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Indianapolis, Ind.:	8.950	8.000	8.300	7.750	8.250	7.650	8.250	8.500	10.167	9.825	10.250	12.250	13.000
Pennsylvania anthracite—													
Stove.....	9.150	8.250	8.500	7.950	8.450	7.900	8.450	8.688	10.353	9.925	10.500	12.250	13.167
Chestnut.....	3.813	3.700	4.611	4.000	4.673	4.208	4.411	4.568	6.800	7.107	6.163	7.375	8.188
Bituminous.....													
Jacksonville, Fla.:													
Pennsylvania anthracite—													
Stove.....	10.000	9.000	9.000	9.125	9.000	9.000	9.000	9.000	11.000	12.000		15.000	17.000
Chestnut.....	10.000	9.000	9.000	9.125	9.000	9.000	9.000	9.000	11.000	12.000		15.000	17.000
Bituminous.....	7.500	7.000	7.125	6.875	7.500	7.000	7.500	7.375	8.000	9.333	9.825	10.000	11.000
Kansas City, Mo.:													
Pennsylvania anthracite—													
Stove.....												16.210	17.400
Chestnut.....												16.470	17.625
Arkansas anthracite—													
Furnace.....			8.286	7.917	8.333	7.833	8.333	8.125	9.292	12.592	13.700	15.107	15.950
Stove, or No. 4.....			8.929	8.500	8.833	8.375	8.833	8.667	9.958	13.150	14.200	15.550	16.583
Bituminous.....	4.391	3.935	4.276	4.093	4.200	4.056	4.515	4.353	6.438	6.703	6.700	7.354	8.625
Little Rock, Ark.:													
Arkansas anthracite—													
Egg.....													
Stove.....	6.000	5.333	6.250	5.833	5.972	5.361	6.000	5.750	8.000	8.250	9.155	12.975	13.333
Bituminous.....			17.000	15.000	15.000	15.000	18.000	16.000		22.000	20.000	21.150	21.000
Los Angeles, Calif.:													
New Mexico anthracite—													
Cerillos egg.....			13.500	12.000	13.600	11.375	13.700	12.900	15.000	14.881	14.700	14.688	16.000
Bituminous.....													
Louisville, Ky.:													
Pennsylvania anthracite—													
Stove.....	9.000	8.250	8.750	8.450	8.700							12.750	13.750
Chestnut.....	9.000	8.250	8.750	8.450	8.700							12.750	13.750
Bituminous.....	4.200	4.000	4.377	3.953	3.997	3.478	3.816	3.797	5.734	6.038	6.783	6.816	6.886
Manchester, N. H.:													
Pennsylvania anthracite—													
Stove.....	10.000	8.500	8.750	8.500	8.750	8.500	9.000	8.750	11.000	11.000	10.500	12.750	13.417
Chestnut.....	10.000	8.500	8.750	8.500	8.750	8.500	9.000	8.750	11.000	11.000	10.500	12.750	13.417
Bituminous.....											10.000	10.000	10.000
Memphis, Tenn.:													
Pennsylvania anthracite—													
Stove.....												15.000	16.000
Chestnut.....												15.000	16.000
Bituminous.....	3.434	3.4219	3.4219	3.4219	3.883	3.838	3.904	3.4083	3.6222	6.539	7.171	7.528	8.000
Pennsylvania anthracite—													
Stove.....													
Chestnut.....													
Bituminous.....													
Pennsylvania anthracite—													
Stove.....	8.000	7.850	8.080	7.930	8.100	7.900	8.100	8.300	9.020	9.500	10.968	12.400	12.600
Chestnut.....	8.250	8.100	8.330	8.180	8.350	8.150	8.350	8.550	9.270	9.650	10.904	12.378	12.700
Bituminous.....	6.250	5.714	6.143	5.714	6.143	5.625	6.000	5.875	7.743	7.385	7.385	8.144	8.960

<sup>1</sup> Prices not secured by Bureau in July, 1917.

<sup>2</sup> Zoned out by Fuel Administration.

<sup>3</sup> Per 10-barrel lots (1,800 pounds).

## MONTHLY LABOR REVIEW.

TABLE 10.—RETAIL PRICES PER TON OF 2,000 POUNDS OF COAL, FOR HOUSEHOLD USE, ON JAN. 15 AND JULY 15 OF EACH YEAR, 1913 TO 1919, INCLUSIVE, AND JANUARY 15, 1920, BY CITIES—Continued.

City, and kind of coal.	1913		1914		1915		1916		1917 <sup>1</sup>		1918		1919		1920	
	January.	July.	January.	July.	January.	July.	January.	July.	January.	July.	January.	July.	January.	July.	January.	July.
Minneapolis, Minn.: Pennsylvania anthracite— Stove.....	\$9.250	\$9.050	\$9.350	\$9.133	\$9.307	\$9.150	\$9.350	\$9.900	\$10.350	\$10.326	\$12.238	\$13.708	\$13.800	\$14.000	\$14.000	\$14.000
Stove.....	9.500	9.300	9.600	9.383	9.557	9.400	9.600	10.150	10.600	10.926	12.328	13.786	13.900	14.100	14.100	14.100
Chestnut.....	5.889	5.792	5.875	5.846	5.990	5.960	5.977	6.375	8.077	8.888	8.474	9.000	9.189	10.425	10.425	10.425
Bituminous.....																
Mobile, Ala.: Pennsylvania anthracite— Stove.....																
Stove.....																
Chestnut.....																
Bituminous.....																
Newark, N. J.: Pennsylvania anthracite— Stove.....	6.500	6.250	6.500	6.250	6.500	6.250	6.500	6.750	7.208	8.100	8.500	9.750	10.050	10.483	10.483	10.483
Stove.....	6.750	6.500	6.750	6.500	6.750	6.500	6.750	7.000	7.292	8.100	8.500	9.750	10.050	10.483	10.483	10.483
Chestnut.....																
New Haven, Conn.: Pennsylvania anthracite— Stove.....	7.500	6.250	6.571	6.579	7.000	6.750	7.500	7.742	9.500	9.750	10.100	12.050	11.333	12.250	12.250	12.250
Stove.....	7.500	6.250	6.571	6.579	7.000	6.750	7.500	7.742	9.500	9.750	10.100	12.050	11.333	12.250	12.250	12.250
Chestnut.....																
New Orleans, La.: Pennsylvania anthracite— Stove.....	10.000	10.000	10.000	10.000	10.000	10.125	10.500	11.700	13.100	13.067		(2)	16.000	17.500	17.500	17.500
Stove.....	10.500	10.500	10.500	10.500	10.500	10.625	11.000	12.200	13.500	13.300	14.550	(2)	16.000	17.500	17.500	17.500
Chestnut.....																
Bituminous.....	\$ 6.056	\$ 6.063	\$ 5.944	\$ 6.071	\$ 5.950	\$ 6.083	\$ 6.091	\$ 6.063	\$ 6.944	8.040	7.789	8.900	8.292	9.269	9.269	9.269
New York, N. Y.: Pennsylvania anthracite— Stove.....	7.071	6.657	6.857	6.850	7.143	6.907	7.107	7.393	8.500	9.058	9.300	10.757	10.800	11.536	11.536	11.536
Stove.....	7.143	6.800	7.000	6.993	7.286	7.057	7.250	7.421	8.500	9.083	9.293	10.764	10.857	11.600	11.600	11.600
Chestnut.....																
Norfolk, Va.: Pennsylvania anthracite— Stove.....																
Stove.....																
Chestnut.....																
Bituminous.....																
Omaha, Nebr.: Pennsylvania anthracite— Stove.....	12.000	10.750	10.700	10.700	10.750	10.700	10.750	11.750	13.200	13.188			16.450	17.275	17.275	17.275
Stove.....	12.000	11.000	10.950	10.950	11.000	10.950	11.000	12.000	13.400	13.338			16.550	17.450	17.450	17.450
Chestnut.....	6.625	6.125	6.125	6.125	6.083	6.167	6.042	6.000	7.857	7.950	7.388	8.471	8.930	10.108	10.108	10.108
Bituminous.....																



## PRICES AND COST OF LIVING.

[illegible]

\* Per 25-bushel lots (1,900 pounds).

<sup>a</sup> Per 10-barrel lots (1,800 pounds).

<sup>3</sup> Per 10-barrel lots (1,800 lb).

! Prices not secured by Bureau in July, 1917.

<sup>1</sup> Prices not secured by Bureau in July.  
<sup>2</sup> Zoned out by Fuel Administration.

TABLE 10.—RETAIL PRICES PER TON OF 2,000 POUNDS OF COAL, FOR HOUSEHOLD USE, ON JAN. 15 AND JULY 15 OF EACH YEAR, 1913 TO 1919, INCLUSIVE, AND JAN. 15, 1920, BY CITIES—Concluded.

City, and kind of coal.	1913		1914		1915		1916		1917 <sup>1</sup>		1918		1919		1920	
	January.	July.	January.	July.	January.	July.	January.	July.	January.	July.	January.	July.	January.	July.	January.	July.
San Francisco, Calif.:																
New Mexico anthracite—																
Cardillo egg.....	\$17.000	\$17.000	\$17.000	\$17.000	\$16.833	\$16.833	\$17.000	\$17.000	\$19.000	\$20.750	\$18.600	\$21.550	\$20.500	\$23.000		
Colorado anthracite—																
Egg.....	17.000	17.000	17.000	17.000	16.833	16.833	17.000	17.000	19.000	18.600	18.600	19.400	19.400	21.750		
Bituminous.....	12.000	12.000	12.091	12.400	12.273	12.333	12.250	12.250	13.429	13.867	14.083	14.200	13.591	15.100		
Scranton, Pa.:																
Pennsylvania anthracite—																
Stove.....	4.250	4.313	4.500	4.313	4.438	4.125	4.375	4.800	5.250	6.113	6.050	7.475	7.683	8.233		
Chestnut.....	4.500	4.563	4.750	4.563	4.688	4.313	4.625	4.800	5.250	6.150	6.150	7.563	7.783	8.300		
Seattle, Wash.:																
Bituminous.....	7.125	7.200	6.167	5.800	5.906	5.313	5.528	5.750	5.850	7.867	9.133	9.163	9.103	9.588		
Springfield, Ill.:																
Bituminous.....																
Washington, D. C.:																
Pennsylvania anthracite—																
Stove.....	7.500	7.381	7.588	7.419	7.731	7.400	7.625	7.725	8.206	10.100	9.960	11.890	11.911	12.447		
Chestnut.....	7.650	7.831	7.738	7.569	7.881	7.550	7.775	7.856	8.200	10.190	10.064	12.019	12.011	12.538		
Bituminous.....																

<sup>1</sup> Prices not secured by Bureau in July, 1917.

<sup>2</sup> At yard, delivery \$0.05 to \$2, according to distance.

<sup>3</sup> Prices in Zone A.

<sup>4</sup> Per ton of 2,240 pounds.

Table 11 shows for the United States both average and relative retail prices of Pennsylvania white ash coal, stove and chestnut sizes, and of bituminous coal on January 15 and July 15 of each year, 1913 to 1919, inclusive, and January 15, 1920. An average price for the year 1913 has been made from the averages for January and July of that year. The average prices for January and July of each year have been divided by this average price for the year 1913 to obtain the relative prices.

January, 1920, compared with January, 1913, shows an increase of 63 per cent in the price of Pennsylvania white ash stove coal, 61 per cent in the price of chestnut, and 62 per cent in the price of bituminous.

January, 1920, compared with January, 1919, shows an increase of 9 per cent in the price of Pennsylvania white ash stove, 11 per cent in the price of chestnut, and 12 per cent in the price of bituminous.

TABLE 11.—AVERAGE AND RELATIVE PRICES OF COAL IN TON LOTS FOR THE UNITED STATES ON JAN. 15 AND JULY 15 OF EACH YEAR, 1913 TO 1919, INCLUSIVE, AND JAN. 15, 1920.

Year and month.	Pennsylvania anthracite, white ash.				Bituminous.	
	Stove.		Chestnut.		Average price.	Relative price.
	Average price.	Relative price.	Average price.	Relative price.		
1913:						
Average for year.....	\$7.73	100	\$7.91	100	\$5.43	100
January.....	7.99	103	8.15	103	5.48	101
July.....	7.46	97	7.68	97	5.39	99
1914:						
January.....	7.80	101	8.00	101	5.97	110
July.....	7.60	98	7.78	98	5.46	101
1915:						
January.....	7.83	101	7.99	101	5.71	105
July.....	7.54	98	7.73	98	5.44	100
1916:						
January.....	7.93	103	8.13	103	5.69	105
July.....	8.12	105	8.28	105	5.52	102
1917:						
January.....	9.29	120	9.40	119	6.96	128
July.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
1918:						
January.....	9.88	128	10.03	127	7.68	141
July.....	9.96	129	10.07	127	7.92	146
1919:						
January.....	11.51	149	11.61	147	7.90	145
July.....	12.16	157	12.19	154	8.10	149
1920:						
January.....	12.59	163	12.77	161	8.81	162

<sup>1</sup> Prices not secured by Bureau in July, 1917.



## Index Numbers of Wholesale Prices in the United States.

WHOLESALE prices in the United States continued to advance during January of the present year, the Bureau's weighted index number rising to 248 as compared with 238 for December and 203 for January, 1919, the average for the year 1913 being regarded as 100. Food products registered the greatest increase from December to January, the index number rising from 234 to 253, or slightly more than 8 per cent. The group of lumber and building materials showed practically 7 per cent increase (from 253 to 268), cloths and clothing nearly 4½ per cent (from 335 to 350), while metals and metal products advanced nearly 5 per cent (from 169 to 177). The index number for house-furnishing goods increased from 303 to 324, that for chemicals and drugs from 179 to 189, and that for miscellaneous articles from 220 to 227. Somewhat smaller increases were recorded for farm products (244 to 246), and fuel and lighting (181 to 184).

The large increase in the index number for the group of food commodities is due mainly to the rise in sugar and potatoes. The price of raw sugar in January advanced more than 26 per cent, granulated sugar nearly 42 per cent, and potatoes nearly 37 per cent above the December average. These articles, being heavily weighted because of their great importance, have a decided influence on the index number for the group. The decrease in the price of butter, eggs, and a few other commodities was offset by the increase in the price of coffee, flour, and meat products. In the cloths and clothing group, the increase in the index number is due largely to the rise in prices of cotton and woolen goods, carpets, and silk. The increase in the index numbers for the remaining groups is about what should be expected in view of the recent advances in the prices of iron and steel products, brick and lumber, household furniture, cottonseed meal, paper, and other staple articles.

In the 12 months from January, 1919, to January, 1920, as measured by changes in the index numbers, farm products increased nearly 11 per cent, food slightly more than 22 per cent, and cloths and clothing nearly 50 per cent. During the same time, fuel and lighting increased over 8 per cent, metals and metal products about 3 per cent, and lumber and building materials nearly 69 per cent. House-furnishing goods increased nearly 49 per cent in this time, and miscellaneous commodities about 7 per cent. Chemicals and drugs, on the contrary, decreased slightly more than 1 per cent in the same period.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES, DECEMBER, 1919, AND JANUARY, 1920, AND JANUARY, 1913 TO 1919, BY GROUPS OF COMMODITIES.

[For detailed statement of index numbers since January, 1913, and for yearly data since 1890, see MONTHLY LABOR REVIEW for February, 1920, pages 87 to 89.]

[1913=100.]

Group.	Decem- ber, 1919.	Janu- ary, 1920. <sup>1</sup>	January.						
			1913	1914	1915	1916	1917	1918	1919
Farm products.....	244	246	97	101	102	108	148	207	222
Food, etc.....	234	253	99	102	106	113	150	187	207
Cloths and clothing.....	335	350	100	98	96	110	161	211	234
Fuel and lighting.....	181	184	103	99	93	105	176	157	170
Metals and metal products.....	169	177	107	92	83	126	183	174	172
Lumber and building materials.....	253	268	100	98	94	99	106	136	161
Chemicals and drugs.....	179	189	101	100	103	150	159	232	191
House-furnishing goods.....	303	324	100	99	99	105	132	161	218
Miscellaneous.....	220	227	100	99	100	107	138	178	212
All commodities.....	238	248	100	100	99	110	151	185	203

<sup>1</sup> Preliminary.

## Wholesale Prices in the United States and Foreign Countries, 1890 to December, 1919.

IN THE following table the more important index numbers of wholesale prices in the United States and several foreign countries, as compiled by recognized authorities, have been reduced to a common base in order that the trend of prices in the several countries may be directly compared. The results here shown have been obtained by merely shifting the base for each series of index numbers to the year 1913, i. e., by dividing the index for 1913 on the original base into the index for each year or month on that base. These results are therefore to be regarded only as approximations of the correct index numbers in the case of series constructed by averaging the relative prices of individual commodities.<sup>1</sup> This applies to the index numbers of the *Annalist*, the *Economist*, the *Statist* (Sauerbeck), the Department of Labor of Canada, the *Statistique Générale* of France, and, presumably, the *Monthly Statistical Bulletin* of New South Wales, Australia. The index numbers of the U. S. Bureau of Labor Statistics, Bradstreet, Dun, Gibson, and the Bureau of Census and Statistics of Australia are built on aggregates of actual money prices, or relatives made from such aggregates of actual prices, and therefore can be readily shifted to any desired base. In cases where no index numbers for years are shown in the original sources, the figures here presented have been obtained by averaging the 12 monthly index numbers.

<sup>1</sup> For a discussion of the defects of index numbers constructed according to this method, see Bulletin No. 181 of the Bureau of Labor Statistics, pp. 245-252.

## WHOLESALE PRICES IN THE UNITED STATES AND CERTAIN FOREIGN COUNTRIES.

[Index numbers expressed as percentages of the index number for 1913. See text explanation.]

Year and month.	United States.					United Kingdom.		Canada.	Australia.		France.
	Bureau of Labor Statistics: 328 commodities (variable).	Annalist: 25 commodities.	Bradstreet: 96 commodities.	Dun: 200 commodities.	Gibson: 22 commodities.	Economist: 44 commodities.	Statist (Sauerbeck): 45 commodities.	Department of Labor: 272 commodities (variable).	Commonwealth Bureau of Census and Statistics: 92 commodities.	New South Wales Monthly Statistical Bulletin: Number of commodities not shown.	Statistique Générale: 45 commodities.
1890.....	81	78	.....	1 75	75	83	85	81	97	.....	.....
1895.....	70	68	70	1 67	72	72	73	71	70	.....	.....
1900.....	80	71	86	77	76	90	88	80	82	.....	.....
1905.....	85	79	88	83	81	84	85	84	84	84	85
1910.....	99	98	98	98	102	93	92	92	92	88	93
1913.....	100	100	100	100	100	100	100	100	100	100	100
1914.....	100	104	97	101	105	99	100	100	106	95	102
1915.....	101	106	107	105	110	123	127	110	147	114	140
1916.....	124	126	128	123	129	160	160	134	138	137	188
1917.....	176	187	170	169	191	204	205	174	153	153	262
1918.....	196	205	203	190	211	225	226	205	.....	162	339
1919.....	212	211	203	190	209	235	242	216	.....	.....	.....
1914.											
January....	100	102	97	103	100	97	98	101	2 100	98	2 100
April.....	98	101	95	99	99	96	96	101	2 102	102	2 100
July.....	100	104	94	99	101	95	104	99	2 109	101	2 101
October....	99	107	100	102	108	101	106	102	2 113	95	2 107
1915.											
January....	99	108	99	103	111	112	118	103	2 127	101	2 124
April.....	100	109	106	103	117	124	125	108	2 153	109	2 135
July.....	101	105	107	103	111	122	126	111	2 167	115	2 142
October....	101	101	108	105	103	125	134	112	2 142	117	2 158
1916.											
January....	110	110	119	114	113	143	149	127	2 138	123	2 179
April.....	117	118	128	121	123	156	157	132	2 137	137	2 190
July.....	119	121	125	120	124	156	157	132	2 138	134	2 186
October....	134	136	131	126	141	171	175	138	2 139	140	2 198
1917.											
January....	151	151	149	140	150	184	187	154	140	150	215
February...	156	159	151	146	156	188	193	160	.....	151	225
March.....	161	170	154	154	166	197	199	163	.....	151	230
April.....	172	188	158	157	188	200	203	169	146	150	248
May.....	182	203	164	172	204	201	205	177	.....	153	256
June.....	185	198	168	176	197	210	211	179	.....	152	266
July.....	186	189	175	175	200	208	208	179	158	152	268
August.....	185	190	178	181	203	210	207	181	.....	156	270
September..	183	195	181	178	206	209	207	179	.....	152	280
October....	181	200	184	182	207	212	212	179	166	147	284
November..	183	199	185	183	206	215	214	183	.....	163	293
December..	182	200	191	182	209	215	218	187	.....	166	304
1918.											
January....	185	200	195	184	205	215	219	190	173	161	313
February...	186	204	196	188	210	216	220	194	.....	165	315
March.....	187	204	196	189	217	218	222	199	.....	156	329
April.....	190	207	200	191	225	221	223	199	178	155	337
May.....	190	207	205	188	216	223	225	204	.....	164	333
June.....	193	201	206	186	211	227	226	207	.....	163	329
July.....	198	203	208	192	212	228	227	210	1 80	160	337
August.....	202	207	208	192	210	233	230	210	.....	170	350
September..	207	210	207	193	212	231	232	211	.....	164	355
October....	204	203	207	193	205	231	233	214	181	160	360
November..	206	205	205	191	204	231	230	215	.....	159	358
December..	206	208	207	191	208	226	231	213	.....	163	353

<sup>1</sup> Average for January and July.<sup>2</sup> Quarter beginning in specified month.



## WHOLESALE PRICES IN THE UNITED STATES AND CERTAIN FOREIGN COUNTRIES—Concluded.

Year and month.	United States.					United Kingdom.		Canada.	Australia.		France.
	Bureau of Labor Statistics: 328 commodities (variable).	Annalist: 25 commodities.	Bradstreet: 96 commodities.	Dun: 200 commodities.	Gibson: 22 commodities.	Economist: 44 commodities.	Statist (Sauerbeck): 45 commodities.	Department of Labor: 272 commodities (variable).	Commonwealth Bureau of Census and Statistics: 92 commodities.	New South Wales Monthly Statistical Bulletin: Number of commodities not shown.	Statistique Générale: 45 commodities.
1919.											
January.....	203	211	201	190	206	217	224	211	177	160	348
February....	197	201	192	182	201	216	221	206	.....	151	340
March.....	201	209	187	180	212	212	217	205	.....	157	337
April.....	203	222	188	182	223	214	217	206	.....	150	332
May.....	207	226	187	184	220	222	229	210	.....	157	325
June.....	207	216	196	189	212	230	235	210	.....	168	330
July.....	218	219	205	193	220	240	243	217	.....	.....	349
August.....	226	220	217	200	218	242	250	222	.....	.....	347
September..	220	202	211	197	201	245	253	223	.....	.....	360
October....	223	200	212	195	191	252	264	221	.....	.....	.....
November..	230	201	216	191	197	259	272	227	.....	.....	.....
December..	238	205	219	202	206	273	277	238	.....	.....	.....

## Price Changes, Wholesale and Retail, of Important Food Articles in Selected Cities.

**E**XACT comparison of wholesale with retail prices is not attempted in the following tables. Some food products—fresh meats, for example—are not sold by the retailer in the same form in which they leave the wholesaler, hence strictly comparable prices are not obtainable. It was found impracticable also to obtain both wholesale and retail prices for the same date, the retail prices being those prevailing on the 15th of the month, while the wholesale prices are for a variable date, usually several days prior to the 15th. The figures in the table are therefore to be considered as merely indicative of price variations in the retail as compared with the wholesale markets.

To assist in comparing the fluctuations at wholesale and at retail, the differential between the two series of quotations at successive dates is given. It should not be assumed, however, that this differential in any case represents the margin of profit to the retailer, since, in addition to a possible difference of grade between the articles shown at wholesale and retail, the various items of handling cost to both the wholesaler and retailer are included in the figure.

## WHOLESALE AND RETAIL PRICES OF IMPORTANT FOOD ARTICLES IN SELECTED CITIES.

[The initials W=wholesale, R=retail. The wholesale price is the mean of the high and low quotation on the date selected, as published in leading trade journals. The retail price is the average of prices reported to the Bureau of Labor Statistics by dealers.]

Article and city.	Unit.	1913: Av- erage for year.	July—				1918		1919					1920
			1914	1915	1916	1917	Jan.	July.	Jan.	July.	Oct.	Nov.	Dec.	Jan.
<b>Beef, Chicago:</b>														
Steer loin ends.....W.	Lb.	Cts. 16.8	Cts. 17.5	Cts. 16.0	Cts. 20.5	Cts. 19.0	Cts. 20.0	Cts. 34.0	Cts. 32.0	Cts. 27.0	Cts. 33.0	Cts. 32.0	Cts. 32.0	Cts. 32.0
Sirloin steak.....R.	Lb.	23.2	26.0	25.8	28.1	30.2	30.2	37.7	37.5	39.3	36.6	37.0	35.9	37.2
Price differential.....		6.4	8.5	9.8	7.6	11.2	10.2	3.7	5.5	12.3	3.6	5.0	3.9	5.2
<b>Beef, Chicago:</b>														
Steer rounds, No. 2. W.	Lb.	13.1	14.5	14.3	14.5	17.0	16.5	25.0	22.0	22.0	21.0	18.5	20.0	20.0
Round steak.....R.	Lb.	20.2	23.3	22.8	24.1	26.6	27.3	35.0	34.0	35.5	32.5	32.5	31.7	32.0
Price differential.....		7.1	8.8	8.5	9.6	9.6	10.8	10.0	12.0	13.5	11.5	14.0	11.7	12.0
<b>Beef, Chicago:</b>														
Steer ribs, No. 2....W.	Lb.	15.7	16.5	14.5	17.5	20.0	20.0	28.0	30.0	24.0	28.0	30.0	28.0	35.0
Rib roast.....R.	Lb.	19.5	21.2	21.3	22.9	24.6	25.4	31.8	31.3	31.9	28.9	29.6	29.0	30.1
Price differential.....		3.8	4.7	6.8	5.4	4.6	5.4	3.8	.....	7.9	.....	.....	.....	.....
<b>Beef, New York:</b>														
No. 2 loins, city.....W.	Lb.	15.8	18.3	17.0	20.0	19.0	23.5	28.0	37.0	28.5	37.0	42.0	42.0	37.0
Sirloin steak.....R.	Lb.	25.9	27.4	28.2	29.4	33.7	34.4	43.9	44.8	44.4	42.6	42.5	42.7	43.3
Price differential.....		10.1	9.1	11.2	9.4	14.7	10.9	15.9	7.8	15.9	5.6	.5	.7	6.3
<b>Beef, New York:</b>														
No. 2 rounds, city...W.	Lb.	12.1	13.5	13.5	14.5	17.5	18.0	28.0	25.0	22.0	22.0	22.0	21.0	21.0
Round steak.....R.	Lb.	24.9	27.0	27.1	28.9	33.7	35.2	46.3	47.3	46.2	44.5	44.4	44.5	44.6
Price differential.....		12.8	13.5	13.6	14.4	16.2	17.2	18.3	22.3	24.2	22.5	22.4	23.5	23.6
<b>Beef, New York:</b>														
No. 2 ribs, city.....W.	Lb.	15.1	16.5	16.0	18.0	19.0	23.5	28.0	35.0	27.5	30.0	36.0	36.0	31.0
Rib roast.....R.	Lb.	21.8	22.5	22.7	24.3	27.9	29.4	37.5	40.9	38.6	37.2	37.6	37.8	38.4
Price differential.....		6.7	6.0	6.7	6.3	8.9	5.9	9.5	5.9	11.1	7.2	1.6	1.8	7.4
<b>Pork, Chicago:</b>														
Loins.....W.	Lb.	14.9	16.5	15.0	16.5	25.0	27.0	29.0	27.0	37.0	35.0	31.0	25.0	25.0
Chops.....R.	Lb.	19.0	20.4	20.1	21.7	29.2	31.6	35.5	35.2	41.7	41.0	36.8	33.3	32.4
Price differential.....		4.1	3.9	5.1	5.2	4.2	4.6	6.5	8.2	4.7	6.0	5.8	8.3	7.4
<b>Pork, New York:</b>														
Loins, western.....W.	Lb.	15.2	16.3	15.3	16.5	23.5	26.5	30.5	33.0	37.0	39.0	40.0	30.0	29.0
Chops.....R.	Lb.	21.7	23.0	21.7	23.9	32.6	34.8	40.6	43.5	47.5	45.7	46.7	41.0	39.9
Price differential.....		6.5	6.7	6.4	7.4	9.1	8.3	10.1	10.5	10.5	6.7	6.7	11.0	10.9
<b>Bacon, Chicago:</b>														
Short clear sides....W.	Lb.	12.7	13.9	11.3	15.9	24.7	30.1	27.4	29.4	33.1	23.3	23.1	24.1	21.6
Sliced.....R.	Lb.	29.4	31.8	31.5	32.8	43.9	49.8	54.7	61.6	61.5	54.6	54.2	52.7	53.1
Price differential.....		16.7	17.9	20.2	16.9	19.2	19.7	27.3	32.2	28.4	31.3	31.1	28.6	31.5
<b>Ham, Chicago:</b>														
Smoked.....W.	Lb.	16.6	17.5	16.3	19.0	24.3	29.8	30.1	35.3	38.3	29.3	28.9	28.9	28.9
Smoked, sliced.....R.	Lb.	26.6	33.8	32.8	34.9	41.4	42.8	49.1	55.3	58.8	54.0	52.3	51.4	51.8
Price differential.....		10.0	16.3	16.5	15.9	17.1	13.0	19.0	20.0	20.5	26.7	23.4	22.5	22.9
<b>Lard, New York:</b>														
Prime, contract.....W.	Lb.	11.0	10.4	8.0	13.3	20.1	24.6	26.2	24.2	35.8	29.0	26.8	23.6	24.5
Pure, tub.....R.	Lb.	16.0	15.6	15.1	16.8	27.4	33.0	32.2	33.1	42.5	35.7	36.3	34.3	33.8
Price differential.....		5.0	5.2	7.1	3.5	7.3	8.4	6.0	8.9	6.7	6.7	9.5	10.7	9.3
<b>Lamb, Chicago:</b>														
Dressed, round.....W.	Lb.	14.9	17.0	19.0	19.0	26.0	24.0	31.0	28.0	29.0	24.0	23.0	22.0	29.0
Leg of, yearling.....R.	Lb.	19.8	21.9	20.8	23.1	28.7	30.6	35.7	34.2	36.2	33.1	32.9	32.3	37.0
Price differential.....		4.9	4.9	1.8	4.1	2.7	6.6	4.7	6.2	7.2	9.1	9.9	10.3	8.0
<b>Poultry, New York:</b>														
Dressed fowls.....W.	Lb.	18.2	18.8	17.5	21.5	24.8	29.8	36.0	35.5	34.5	37.8	35.0	34.5	35.3
Dressed hens.....R.	Lb.	21.4	22.0	21.9	25.6	28.7	32.6	41.0	40.8	41.5	40.5	39.9	40.1	40.3
Price differential.....		3.2	3.2	4.4	4.1	3.9	2.8	5.0	5.3	7.0	2.7	4.9	5.6	5.0
<b>Butter, Chicago:</b>														
Creamery, extra.....W.	Lb.	31.0	26.5	26.5	27.5	37.5	49.0	42.5	66.0	52.0	63.5	67.8	71.8	62.0
Creamery, extra.....R.	Lb.	36.2	31.2	32.2	33.5	43.3	54.4	48.0	71.3	57.1	67.8	73.6	74.4	69.0
Price differential.....		5.2	4.7	5.7	6.0	5.7	5.4	5.5	5.3	5.1	4.3	5.8	2.6	7.0
<b>Butter, New York:</b>														
Creamery, extra.....W.	Lb.	32.3	28.0	27.0	28.5	39.5	51.0	44.4	67.0	51.0	66.8	69.5	73.5	63.8
Creamery, extra.....R.	Lb.	38.2	32.8	33.6	34.6	45.3	57.4	51.4	75.5	61.3	72.4	77.9	80.6	75.2
Price differential.....		5.9	4.8	6.6	6.1	5.8	6.4	7.0	8.5	10.3	5.6	8.4	7.1	11.4
<b>Butter, San Francisco:</b>														
Creamery, extra.....W.	Lb.	31.7	24.5	26.5	25.5	38.5	53.0	50.0	64.5	56.5	66.0	67.5	68.0	61.0
Creamery, extra.....R.	Lb.	38.8	32.9	33.8	33.3	45.5	60.2	56.6	72.3	64.7	73.5	74.3	75.5	70.9
Price differential.....		7.1	8.4	7.3	7.8	7.0	7.2	6.6	7.8	8.2	7.5	6.8	7.5	9.9
<b>Cheese, Chicago:</b>														
Whole milk.....W.	Lb.	14.2	13.3	14.5	14.5	21.6	23.3	22.7	36.3	30.9	27.4	30.6	30.1	30.4
Full cream.....R.	Lb.	22.9	24.2	23.9	24.2	33.9	37.5	34.5	43.9	44.1	44.4	44.6	45.0	44.9
Price differential.....		8.4	9.7	12.3	12.7	13.4	12.2	11.8	7.6	13.2	17.0	14.0	14.9	14.5

<sup>1</sup> Price is for different quality of beef from that quoted at wholesale.

## WHOLESALE AND RETAIL PRICES OF IMPORTANT FOOD ARTICLES IN SELECTED CITIES—Concluded.

Article and city.	Unit.	1913: Av- erage for year.	July—				1918		1919					1920
			1914	1915	1916	1917	Jan.	July.	Jan.	July.	Oct.	Nov.	Dec.	Jan.
Cheese, New York:		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Wholemilk, State.. W.	Lb.	15.4	14.4	14.6	15.1	23.8	23.0	23.9	36.8	31.5	30.3	31.9	31.5	31.4
Full cream..... R.	Lb.			22.9	22.8	32.8	34.4	33.2	42.7	42.8	42.3	42.9	43.1	43.3
Price differential.....				8.3	7.7	9.0	11.4	9.3	5.9	11.3	12.0	11.0	11.6	11.9
Cheese, San Francisco:														
Fancy..... W.	Lb.	15.9	12.5	11.5	13.5	20.0	25.5	26.0	33.5	32.0	33.0	35.5	33.5	32.5
Full cream..... R.	Lb.			20.0	22.9	29.7	33.5	32.3	41.9	41.2	44.7	44.4	44.8	43.2
Price differential.....				8.5	9.4	9.7	8.0	6.3	8.4	9.2	11.7	8.9	11.3	10.7
Milk, Chicago:														
Fresh..... W.	Qt.	3.8	3.6	3.7	3.6	4.7	7.0	5.3	8.4	6.8	8.2	8.1	8.1	8.1
Fresh, bottled..... R.	Qt.	8.0	8.0	8.0	8.1	10.0	11.9	12.0	14.0	14.0	15.0	15.0	15.1	15.0
Price differential.....		4.2	4.4	4.3	4.5	5.3	4.9	6.7	5.6	7.2	6.8	6.9	7.0	6.9
Milk, New York:														
Fresh..... W.	Qt.	3.5	3.0	3.0	3.1	5.0	8.1	5.4	9.2	7.1	7.3	7.8	8.5	8.5
Fresh, bottled..... R.	Qt.	9.0	9.0	9.0	9.0	11.4	15.0	12.7	16.0	16.0	16.0	17.7	18.0	18.0
Price differential.....		5.5	6.0	6.0	5.9	6.4	6.9	7.3	6.8	8.9	8.7	9.9	9.5	9.5
Milk, San Francisco:														
Fresh..... W.	Qt.	3.8	3.9	3.8	3.8	4.3	6.6	5.9	7.4	7.4	7.4	7.4	7.9	8.8
Fresh, bottled..... R.	Qt.	10.0	10.0	10.0	10.0	10.0	12.1	12.1	14.0	14.0	14.2	15.0	15.3	15.8
Price differential.....		6.1	6.1	6.2	6.2	5.7	5.5	6.2	6.6	6.6	6.8	7.6	7.4	7.0
Eggs, Chicago:														
Fresh, firsts..... W.	Doz.	22.6	18.8	16.8	21.8	31.0	56.5	36.5	58.8	42.0	56.8	60.5	80.0	68.5
Strictly fresh..... R.	Doz.	29.2	26.1	24.8	29.6	40.6	65.1	45.7	69.5	53.2	65.6	74.2	82.1	77.8
Price differential.....		6.6	7.3	8.0	7.8	9.6	8.6	9.2	10.7	11.2	8.8	13.7	2.1	9.3
Eggs, New York:														
Fresh, firsts..... W.	Doz.	24.9	21.5	20.0	24.1	35.0	64.5	40.0	61.3	44.5	61.0	65.5	87.0	77.5
Strictly fresh..... R.	Doz.	39.7	35.3	32.6	37.2	47.7	80.8	57.3	78.1	66.4	80.0	88.1	101.3	95.8
Price differential.....		14.8	13.8	12.6	13.1	12.7	16.3	17.3	16.8	21.9	19.0	22.6	14.3	18.3
Eggs, San Francisco:														
Fresh..... W.	Doz.	26.8	23.0	22.0	24.0	32.0	61.0	44.0	53.0	45.0	59.5	64.0	76.0	54.5
Strictly fresh..... R.	Doz.	37.3	33.8	31.0	33.3	39.2	71.0	51.4	65.7	56.6	79.1	88.7	83.9	68.9
Price differential.....		10.5	10.8	9.0	9.3	7.2	10.0	7.4	12.7	11.6	9.6	24.7	7.9	14.4
Meal, corn, Chicago:														
Fine..... W.	Lb.	1.4	1.6		1.9	4.5	5.1	5.4	3.6	4.6	3.6	3.7	3.8	3.7
Fine..... R.	Lb.	2.9	2.8	3.1	3.1	5.8	7.0	6.8	5.8	6.1	6.7	6.7	6.6	6.6
Price differential.....		1.5	1.2		1.2	1.3	1.9	1.4	2.2	1.5	3.1	3.0	2.8	2.9
Beans, New York:														
Medium, choice... W.	Lb.	4.0	4.0	5.8	9.8	15.4	14.1	11.9	9.9	7.5	7.9	7.8	7.8	7.9
Navy, white..... R.	Lb.			8.1	11.3	18.8	18.5	17.5	15.3	12.2	12.3	12.6	12.3	12.5
Price differential.....				2.3	1.5	3.4	4.4	5.6	5.4	4.7	4.4	4.8	4.5	4.6
Potatoes, Chicago:														
White <sup>1</sup> ..... W.	Lb.	1.0	2.4	.7	1.6	4.4	2.0	1.5	1.9	1.4	2.2	2.9	3.2	4.3
White..... R.	Lb.	1.5	2.7	1.2	2.3	5.0	2.8	3.7	2.7	5.0	3.4	3.8	4.1	5.2
Price differential.....		.5	.3	.5	.7	.6	.8	2.2	.8	3.6	1.2	.9	.9	.9
Rice, New Orleans:														
Head..... W.	Lb.	5.0	5.4	4.9	4.6	7.1	8.8	9.3	9.1	10.5	12.4	12.9	12.4	12.6
Head..... R.	Lb.			7.5	7.4	10.1	10.6	11.9	12.0	14.2	14.8	15.1	15.4	16.0
Price differential.....				2.6	2.8	3.0	1.8	2.6	2.9	3.7	2.4	2.2	3.0	3.4
Sugar, New York:														
Granulated..... W.	Lb.	4.3	4.2	5.9	7.5	7.4	7.3	7.4	8.8	8.8	8.8	8.8	8.8	15.7
Granulated..... R.	Lb.	4.9	4.6	6.3	7.9	8.4	9.7	8.8	10.1	10.0	10.8	10.8	11.9	17.3
Price differential.....		.6	.4	.4	.4	1.0	2.4	1.4	1.3	1.2	2.0	2.0	3.1	1.6

<sup>1</sup> Good to choice.



RELATIVE WHOLESALE AND RETAIL PRICES OF IMPORTANT FOOD ARTICLES IN  
SELECTED CITIES (AVERAGE FOR 1913=100).

Article and city.	Average for 1913.	July.				1918		1919					1920
		1914	1915	1916	1917	Jan.	July.	Jan.	July.	Oct.	Nov.	Dec.	Jan.
Beef, Chicago:													
Steer loin ends (hip).... W..	100	104	95	122	113	119	202	190	161	196	190	190	190
Sirloin steak..... R..	100	112	111	121	130	130	163	162	169	158	159	155	160
Beef, Chicago:													
Steer rounds, No. 2..... W..	100	111	109	111	130	126	191	168	168	160	141	153	153
Round steak..... R..	100	115	113	119	132	135	173	168	176	161	161	157	158
Beef, Chicago:													
Steer ribs, No. 2..... W..	100	105	92	111	127	127	178	191	153	178	191	178	223
Rib roast..... R..	100	109	109	117	126	130	163	159	164	148	152	149	154
Beef, New York:													
No. 2 loins, city..... W..	100	116	108	127	120	149	177	234	180	234	266	266	234
Sirloin steak..... R..	100	106	109	114	130	130	170	173	171	164	164	165	167
Beef, New York:													
No. 2 rounds, city..... W..	100	112	112	120	145	149	231	207	182	182	182	174	174
Round steak..... R..	100	108	109	116	135	141	186	190	186	179	178	179	179
Beef, New York:													
No. 2 ribs, city..... W..	100	109	106	119	126	156	185	232	182	199	238	238	205
Rib roast..... R..	100	103	104	111	128	135	172	188	177	171	172	173	176
Pork, Chicago:													
Loins..... W..	100	111	101	111	168	181	195	181	248	235	208	168	168
Chops..... R..	100	107	106	114	154	166	187	185	219	216	194	175	171
Pork, New York:													
Loins, western..... W..	100	107	101	109	155	174	201	217	243	257	263	197	191
Chops..... R..	100	106	100	110	150	160	187	200	219	211	215	189	184
Bacon, Chicago:													
Short clear sides..... W..	100	109	89	125	194	237	216	232	261	183	182	190	170
Sliced..... R..	100	108	107	112	149	169	186	210	209	186	184	179	181
Ham, Chicago:													
Smoked..... W..	100	105	98	114	146	180	181	213	231	177	174	174	174
Smoked, sliced..... R..	100	127	123	131	156	161	185	208	221	203	197	193	195
Lard, New York:													
Prime, contract..... W..	100	95	73	121	183	224	238	220	325	264	244	215	223
Pure, tub..... R..	100	98	94	105	171	206	201	207	266	223	227	214	211
Lamb, Chicago:													
Dressed, round..... W..	100	114	128	128	174	161	208	188	195	161	154	148	195
Leg of, yearling..... R..	100	111	105	117	145	155	180	173	183	167	166	163	187
Poultry, New York:													
Dressed fowls..... W..	100	103	96	118	136	164	198	195	190	208	192	190	194
Dressed hens..... R..	100	103	103	120	134	152	192	191	194	189	186	187	188
Butter, Chicago:													
Creamery, extra..... W..	100	85	85	89	121	158	137	213	168	205	219	232	200
Creamery, extra..... R..	100	86	89	93	119	150	133	197	158	187	203	206	191
Butter, New York:													
Creamery, extra..... W..	100	87	84	88	122	158	137	207	158	207	215	228	198
Creamery, extra..... R..	100	96	88	91	119	150	135	198	160	190	204	211	197
Butter, San Francisco:													
Creamery, extra..... W..	100	77	84	80	121	167	158	203	178	208	213	215	192
Creamery, extra..... R..	100	85	87	86	117	155	146	186	167	189	191	195	183
Milk, Chicago:													
Fresh..... W..	100	95	97	95	124	184	139	221	179	216	213	213	213
Fresh, bottled, delivered. R..	100	100	100	101	125	149	150	175	175	188	188	189	188
Milk, New York:													
Fresh..... W..	100	86	86	89	143	231	154	263	203	209	223	243	243
Fresh, bottled, delivered. R..	100	100	100	100	127	167	141	178	178	178	197	200	200
Milk, San Francisco:													
Fresh..... W..	100	100	97	97	110	169	151	190	190	190	190	203	226
Fresh, bottled..... R..	100	100	100	100	100	121	121	140	140	142	150	153	158
Eggs, Chicago:													
Fresh, firsts..... W..	100	83	74	96	137	250	162	260	186	251	268	354	303
Strictly fresh..... R..	100	89	85	101	139	223	137	238	182	225	254	281	266
Eggs, New York:													
Fresh, firsts..... W..	100	86	80	97	141	259	161	246	179	245	263	349	311
Strictly fresh..... R..	100	89	82	94	120	204	144	197	167	202	222	255	241
Eggs, San Francisco:													
Fresh..... W..	100	86	82	90	119	228	164	198	168	222	239	284	203
Strictly fresh..... R..	100	91	83	89	105	190	138	176	152	212	238	225	185
Meal, corn, Chicago:													
Fine..... W..	100	114	.....	136	321	364	386	257	329	257	264	271	264
Fine..... R..	100	97	107	107	200	241	234	200	210	231	231	228	228
Potatoes, Chicago:													
White, good to choice... W..	100	237	66	160	429	200	150	190	140	220	290	320	430
White..... R..	100	182	78	151	331	187	247	180	333	227	253	273	347
Sugar, New York:													
Granulated..... W..	100	98	137	174	172	170	172	205	205	205	205	205	365
Granulated..... R..	100	94	129	161	171	198	180	206	204	220	220	243	353

## Cost of Living in Lawrence, Mass., in 1919.

THE National Industrial Conference Board has recently published the results of a study<sup>1</sup> undertaken for the purpose of "ascertaining the cost of maintaining a minimum but reasonable standard of living for a representative wage earner's family" consisting of man, wife, and three children under 14, and the cost of maintaining "a somewhat better standard, according to conditions actually existing" in Lawrence, Mass. Using the standard budgets developed in a similar study made by the board, in Fall River, the board secured the prices being charged for food, clothing, shelter, fuel, light, and sundries.

It was found that the minimum average cost of all items combined was \$1,385.79. To maintain this minimum standard would require an average weekly income of \$26.65 the year round. The more liberal budget was found to require a yearly expenditure of \$1,658.04, to meet which the family must have a steady weekly income of \$31.88. The budget makes no provision for savings except such as are effected through insurance.

The following table shows for each item of expenditure the average cost per week and per year of the minimum budget and the more liberal budget. For the sake of comparison the average annual expenditure of 109 families in Lawrence, as shown by an investigation made in 1918 by the United States Bureau of Labor Statistics, is given.<sup>2</sup>

BUDGETS ESTABLISHED BY NATIONAL INDUSTRIAL CONFERENCE BOARD, NOVEMBER, 1919, AND EXPENDITURE FOR THE SAME ITEMS, AS SHOWN BY THE BUREAU OF LABOR STATISTICS STUDY, 1918, FOR FAMILIES OF LAWRENCE, MASS.

Item of expenditure.	Budget of National Industrial Conference Board.				U. S. Bureau of Labor Statistics study, 1918.
	Minimum standard.		More liberal standard.		
	Average weekly cost.	Average yearly cost.	Average weekly cost.	Average yearly cost.	
Food.....	\$11.55	\$600.60	\$12.55	\$652.60	\$651.46
Shelter.....	3.50	182.00	4.50	234.00	176.59
Clothing.....	5.11	265.61	6.54	340.26	258.06
Fuel and light.....	1.37	71.34	1.69	87.98	77.72
Sundries.....	5.12	266.24	6.60	343.20	340.83
All items.....	26.65	1,385.79	31.88	1,658.04	1,504.67

The "representative wage earner's family" taken by the board consisted of man, wife, and three children—a boy 13 to 14 years of

<sup>1</sup> National Industrial Conference Board. The cost of living among wage earners, Lawrence, Mass., November, 1919. Boston, 1919. 21 pp.

<sup>2</sup> MONTHLY LABOR REVIEW, May, 1919, p. 156.

age, a girl 8 to 9 years of age, and a boy 5 to 6 years of age. In terms of the standard of food requirement established by the Bureau of Labor Statistics, this is a family of 3.95 equivalent adult males as compared with the average family of 3.64 equivalent adult males of the Bureau's study. The annual expenditure for food per equivalent adult male amounts to \$165.22 in the board's study and \$178.97 in the Bureau's study. The allowance made by the National Industrial Conference Board as a fairly liberal expenditure for this item is therefore \$13.75 less per year than the amount actually spent by the 109 families studied by the Bureau. The Bureau's study, however, included in this number families with incomes ranging from less than \$900 up to \$2,500. For the 24 families of 3.18 equivalent adult males each, taken in the Bureau's study, having incomes of \$1,500 and under \$1,800—in which group the income allowed by the board would fall—the expenditure for food was \$652.02, or a yearly average of \$205.04 per equivalent adult male. Here the difference between the amount allowed by the National Industrial Conference Board and the amount found by the Bureau actually to have been spent is still greater, being \$39.82. It must be remembered also that this difference takes no account of the increase in the price of food since 1918<sup>1</sup> when the Bureau's investigation was made.

With the exception of the item of food, however, the figures arrived at by the board in its study and those shown by the Bureau are in substantial agreement, if allowance is made for increases since 1918.

The board found that the following increases in the items of its budget have taken place since 1914:

INCREASE IN COST OF ITEMS OF BUDGET BETWEEN NOVEMBER, 1914, AND NOVEMBER, 1919.

Item.	Minimum standard.	More liberal standard.
	<i>Per cent.</i>	<i>Per cent.</i>
Food.....	95	95
Shelter.....	35	35
Clothing.....	120	107
Fuel, heat, and light.....	59	60
Sundries.....	85	76
All items.....	84	80

<sup>1</sup> Figures published by the Bureau (MONTHLY LABOR REVIEW, January, 1920, p. 72) show that the retail prices of 22 articles of food increased 4.9 per cent between Nov. 15, 1918, and Nov. 15, 1919.



## Changes in Retail Prices in Canada, 1914 to 1919.

THE Canadian Labor Gazette for January, 1920 (pp. 86-92), gives a review of price movements in the Dominion during 1919, with a table showing index numbers of wholesale prices by groups of commodities in certain months of the years 1914 to 1919, and another table giving the cost per week of a family budget of staple foods, fuel and lighting, and rent in terms of the average prices in 60 cities. The data in the second table are also presented by Provinces. The following table summarizes the information contained in the second table, the prices given being confined to two months in each year 1914 to 1918, and to three months in 1919.

COST PER WEEK OF A FAMILY BUDGET OF STAPLE FOODS, FUEL AND LIGHTING, AND RENT IN TERMS OF THE AVERAGE PRICES IN 60 CITIES IN CANADA.

Commodity.	Unit.	1914		1915		1916		1917		1918		1919		
		Jan.	July.	Jan.	July.	Jan.	July.	Jan.	July.	Jan.	July.	Jan.	July.	Dec.
Beef, sirloin steak.....	2 lbs.	Cts. 46.4	Cts. 49.4	Cts. 47.2	Cts. 49.2	Cts. 47.2	Cts. 52.6	Cts. 52.8	Cts. 63.6	Cts. 63.8	Cts. 79.6	Cts. 73.6	Cts. 79.8	Cts. 69.4
Beef, shoulder roast.....	2 lbs.	32.6	33.6	32.8	33.4	32.4	35.2	34.8	43.5	45.0	57.8	51.6	55.2	45.6
Veal.....	1 lb.	16.6	17.4	17.6	17.3	17.8	19.2	20.3	22.8	25.3	28.3	27.7	28.3	25.5
Mutton.....	1 lb.	20.9	20.9	20.4	21.3	21.1	23.9	24.8	28.9	31.2	36.8	34.9	36.3	32.3
Pork, fresh.....	1 lb.	20.6	20.2	19.0	19.5	19.9	22.4	24.6	30.0	33.1	37.7	36.9	42.1	35.7
Pork, salt.....	2 lbs.	36.2	37.4	35.8	34.4	36.0	38.8	44.8	54.1	62.6	70.4	70.8	75.2	70.6
Bacon.....	1 lb.	24.8	25.5	25.1	26.6	26.7	28.7	31.2	39.8	44.8	51.0	51.0	56.3	51.8
Lard.....	2 lbs.	37.2	36.8	35.6	35.8	36.6	40.4	48.6	62.3	66.6	73.8	73.8	83.8	77.8
Eggs, fresh.....	1 doz.	45.5	26.9	45.5	25.3	46.4	31.0	56.9	38.8	63.3	49.3	73.6	52.7	82.4
Eggs, storage.....	1 doz.	33.4	24.9	34.9	24.9	36.1	28.0	45.3	35.9	51.2	43.1	62.5	48.1	68.5
Milk.....	6 qts.	55.2	51.0	55.2	52.2	52.2	45.0	59.4	59.3	71.4	70.8	82.8	78.6	88.8
Butter, dairy.....	2 lbs.	61.0	49.8	61.8	56.2	66.6	60.4	88.4	75.5	93.8	91.4	106.0	106.2	132.4
Butter, creamery.....	1 lb.	35.9	30.0	35.0	32.6	38.1	34.5	48.9	42.5	51.2	51.7	59.1	60.4	72.6
Cheese, old.....	1 lb.	21.3	21.1	22.5	24.6	24.4	25.6	30.5	33.4	33.3	33.4	35.7	40.3	40.9
Cheese, new.....	1 lb.	19.6	19.4	20.5	22.6	22.4	23.6	28.8	30.3	30.4	30.6	33.9	38.8	37.6
Bread.....	15 lbs.	64.2	63.0	67.5	73.5	66.0	70.5	91.5	110.4	114.0	117.0	120.0	120.0	118.5
Flour.....	10 lbs.	32.0	33.0	39.0	41.0	37.0	37.0	53.0	69.9	65.0	68.0	69.0	67.0	67.0
Rolled oats.....	5 lbs.	21.5	21.5	24.5	26.0	24.0	24.0	27.0	31.4	35.0	40.5	40.0	37.0	39.5
Rice, medium.....	2 lbs.	12.0	11.6	12.2	12.0	12.0	13.4	13.6	16.8	19.6	23.2	25.2	24.6	29.0
Beans.....	2 lbs.	11.8	11.8	13.2	14.8	17.2	19.4	24.4	31.5	33.4	34.2	30.2	22.6	23.0
Apples, evaporated.....	1 lb.	12.4	13.1	12.1	11.9	12.5	13.4	14.6	15.8	19.7	22.9	22.7	24.6	26.6
Prunes.....	1 lb.	12.2	12.4	12.9	13.0	12.7	13.1	13.6	15.5	17.3	18.0	19.6	22.0	25.2
Sugar, granulated.....	4 lbs.	22.8	22.0	30.8	32.0	31.2	38.4	36.8	39.5	42.8	43.6	49.2	47.2	53.2
Sugar, yellow.....	2 lbs.	10.2	10.2	14.0	14.6	14.4	17.6	17.0	18.3	19.8	20.4	22.4	22.2	25.2
Tea, black.....	1 lb.	9.1	9.1	9.6	9.5	9.7	9.9	10.1	11.6	12.5	14.6	15.9	15.4	15.9
Tea, green.....	1 lb.	9.3	9.3	9.6	9.8	10.0	10.3	10.1	11.3	12.1	14.1	15.3	15.6	16.5
Coffee.....	1 lb.	9.5	9.4	9.9	9.9	9.8	10.0	9.9	10.1	10.1	11.2	11.8	13.4	14.3
Potatoes.....	1 bag	37.5	50.3	31.7	29.3	47.0	58.6	64.7	118.2	72.7	66.0	62.3	62.7	86.7
Vinegar.....	1 qt.	.8	.7	.8	.8	.8	.8	.8	.8	.8	.9	.9	1.0	.9
<b>All foods.....</b>		<b>\$7.73</b>	<b>\$7.42</b>	<b>\$7.97</b>	<b>\$7.74</b>	<b>\$8.28</b>	<b>\$8.46</b>	<b>\$10.27</b>	<b>\$11.62</b>	<b>\$12.42</b>	<b>\$13.00</b>	<b>\$13.78</b>	<b>\$13.77</b>	<b>\$14.73</b>
Coal, anthracite.....	1 ton	Cts. 54.1	Cts. 53.2	Cts. 54.1	Cts. 52.1	Cts. 53.2	Cts. 54.7	Cts. 64.0	Cts. 63.2	Cts. 72.4	Cts. 73.8	Cts. 82.5	Cts. 71.9	Cts. 83.1
Coal, bituminous.....	1 ton	37.1	38.0	38.0	35.8	36.9	38.0	47.7	57.8	55.9	58.7	63.4	61.8	64.0
Wood, hard.....	1 ton	42.9	42.5	42.4	41.7	41.6	41.9	45.7	52.0	63.7	69.2	76.8	74.7	80.0
Wood, soft.....	1 ton	32.1	31.8	31.3	30.6	30.7	30.2	32.7	39.7	47.2	50.8	56.5	57.8	60.0
Coal oil.....	1 gal.	23.9	23.5	23.7	23.4	23.0	22.8	23.2	25.6	25.8	27.8	28.2	28.9	29.6
<b>Fuel and lighting.....</b>		<b>\$1.90</b>	<b>\$1.89</b>	<b>\$1.90</b>	<b>\$1.84</b>	<b>\$1.85</b>	<b>\$1.87</b>	<b>\$2.13</b>	<b>\$2.38</b>	<b>\$2.65</b>	<b>\$2.80</b>	<b>\$3.07</b>	<b>\$2.95</b>	<b>\$3.17</b>
<b>Rent.....</b>	<b>1 mo.</b>	<b>4.83</b>	<b>4.83</b>	<b>4.37</b>	<b>4.09</b>	<b>3.98</b>	<b>4.04</b>	<b>4.05</b>	<b>4.37</b>	<b>4.50</b>	<b>4.81</b>	<b>4.83</b>	<b>5.25</b>	<b>5.54</b>
<b>Total.....</b>		<b>14.49</b>	<b>14.17</b>	<b>14.27</b>	<b>13.70</b>	<b>14.14</b>	<b>14.41</b>	<b>16.49</b>	<b>18.41</b>	<b>19.61</b>	<b>20.66</b>	<b>21.74</b>	<b>22.02</b>	<b>23.49</b>

## Cost of Living in Paris in January, 1920, Compared with 1914 and April, 1919.

THE Economist (London) for January 10, 1920, publishes a table, received from its Paris correspondent, showing changes in the cost of living in that city in January, 1920, as compared with the year 1914 and April, 1919. Prices are given in francs, conversions into United States money not being made because of the constantly fluctuating value of the franc. Normally the par value of the franc is 19.3 cents. Only the food and clothing items of the original table are presented.

CHANGES IN COST OF LIVING IN PARIS, JANUARY, 1920, COMPARED WITH 1914 AND APRIL, 1919.

Item.	Unit.	1914.	April, 1919.	January, 1920.
		<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>
<b>Food:</b>				
Potatoes.....	Kilo <sup>1</sup> ...	0.15	0.65	0.75
Milk.....	Liter <sup>2</sup> ...	.40	.80	.95
Eggs.....	Each.....	.15	.45	.80
Coffee.....	Kilo <sup>1</sup> ...	4.00	10.00	11.00
Butter.....	Pound...	1.90	8.50	8.80
Ham.....	do.....	2.00	10.00	12.00
Rice.....	do.....	.60	.75	1.70
Salt.....	do.....	.10	.25	.50
Bread.....	Kilo <sup>1</sup> ...	.35	.50	.90
Sugar.....	do.....	.65	2.10	3.20
<b>Clothing:</b>				
Men's suits.....		25.00	200.00	450.00
Women's tailor-made suits.....		175.00	400.00	700.00
Men's boots.....		25.00 to 40.00	60.00 to 90.00	70.00 to 140.00
Women's boots.....		28.00 to 45.00	70.00 to 100.00	80.00 to 175.00
Men's socks (thread).....		2.75	7.00	18.00
Men's silk hats.....		20.00	60.00	100.00
Men's felt hats.....		18.00	40.00	60.00

<sup>1</sup> A kilo is equivalent to 2.205 pounds.

<sup>2</sup> A liter is equivalent to 1.057 quarts.

## Retail Price Changes in Great Britain.

THE following table gives for Great Britain the increase over July, 1914, in the cost of food and general family expenditure for February of each year, 1915 to 1920, and for each month in 1919. The food items included in this report are: Ribs and thin flank of beef, both British and chilled or frozen; legs and breast of mutton, British and chilled or frozen; bacon; fish; flour; bread; tea; sugar; milk; butter, fresh and salt; cheese; margarine; eggs; and potatoes.

The table gives percentage of increase, and is not one of relative prices, as is the table given for the United States. When making comparisons this should be borne in mind, and to obtain the relative prices it is necessary to add 100 to the percentage as given, e. g., for January, 1919, the increase in cost of food is 130 per cent, the relative price being 230.

The figures represent two comparisons: First, the increase in prices, based on the same kinds and quantities as used in July, 1914; second, the increase, based on the change in the standard of living, resulting from a substitution of one kind of food for another to meet war-time conditions.

The table shows that retail prices of food were 135 per cent higher in February, 1920, than in July, 1914, and that the increased cost of all items in the family budget was 130 per cent. On account of the lower standard of living at the later date the expenditures of wage earners for food increased only 112 per cent and for all items in the family budget 115 per cent during the same period.

PER CENT INCREASE IN COST OF FOOD AND ALL ITEMS IN FAMILY BUDGET IN GREAT BRITAIN BASED ON JULY, 1914.

[Compiled from the British Labor Gazette.]

Year and month.	Food.		All items in family budget.	
	Retail prices (assuming same kinds and quantities).	Expenditures (allowing for estimated changes in con- sumption).	Cost (assuming same kinds and quantities).	Expenditures (allowing for estimated changes in con- sumption).
February, 1915.....	22			
February, 1916.....	47			
February, 1917.....	89	1 50	£ 60-65	
February, 1918.....	108	54	£ 90	55-60
1919.				
January.....	130	79	£ 120	90
February.....	130	77	£ 120	90-95
March.....	120	79	£ 115	90
April.....	113	87	£ 110	95
May.....	107	81	£ 105	90
June.....	104	87	£ 105	95
July.....	109	97	105-110	100
August.....	117	108	115	110
September.....	116	103	115	105
October.....	122	113	120	110-115
November.....	131	119	125	115-120
December.....	134	116	125	110-115
1920.				
January.....	136	115	125	115
February.....	135	112	130	115

<sup>1</sup> Approximate increase if standard of consumption is changed as follows: Eggs omitted; margarine substituted for butter; sugar and fish consumption cut one-half.

<sup>2</sup> Not including taxes.

<sup>3</sup> Including taxes.

<sup>4</sup> The increase, excluding additional taxation, is 7 per cent less.

<sup>5</sup> The increase, excluding additional taxation, is 6 per cent less.

## Cost of Living in South Africa, 1910 to September, 1919.<sup>1</sup>

**A** SUPPLEMENT to the half-yearly abstract of statistics issued by the Office of Census and Statistics of the Union of South Africa in June, 1919, contains a table of index numbers showing the changes in the cost of living from 1910 to September, 1919, the former year being taken as the base, or 1,000. These index

<sup>1</sup> Union of South Africa. Office of Census and Statistics. Supplement to half-yearly Abstract of union statistics. No. 1, June, 1919. Pretoria, October, 1919. 7 pp.



numbers represent weighted averages for nine cities, namely, Bloemfontein, Cape Town, Durban, East London, Johannesburg, Kimberley, Pietermaritzburg, Port Elizabeth, and Pretoria, and cover the items of food, fuel, light, and rent.

*Index Numbers of Cost of Living in Nine Cities in the Union of South Africa, by years 1910 to 1918, and January to September, 1919.*

1910.....	1,000	1919:	
1911.....	1,036	January.....	1,331
1912.....	1,065	February.....	1,339
1913.....	1,077	March.....	1,347
1914.....	1,089	April.....	1,359
1915.....	1,105	May.....	1,355
1916.....	1,153	June.....	1,363
1917.....	1,250	July.....	1,359
1918.....	1,300	August.....	1,407
		September.....	1,411

## Retail Prices of Food in Czecho-Slovakia, April, 1914, and December, 1919.

A TABLE recently published by a Prague daily paper<sup>1</sup> contains comparative data as to official retail prices in April, 1914, and December, 1919, of a number of important foodstuffs. The increase of the prices ruling in December, 1919, over those of April, 1914, is enormous, varying between 345 per cent in the case of sugar and 2,285 per cent in that of potatoes. These large increases are, of course, due not only to the prevailing shortage of food but chiefly to the great depreciation of the crown. The table is reproduced below.

RETAIL FOOD PRICES IN PRAGUE, APRIL, 1914, AND DECEMBER, 1919.

Article.	Unit.	Retail price.		
		April, 1914.	December, 1919.	Relative price.
		<i>Crowns.<sup>2</sup></i>	<i>Crowns.<sup>2</sup></i>	
Beef.....	Kilo.....	1.85	20.00	1,081
Pork.....	do.....	2.06	28.00	1,359
Lard.....	do.....	2.04	37.00	1,813
Eggs.....	Each.....	.10	2.00	2,000
Butter.....	Kilo.....	3.87	50.00	1,291
Rice.....	do.....	.67	5.00	746
Geese.....	do.....	2.50	26.00	1,040
Potatoes.....	do.....	.07	1.60	2,285
Sugar.....	do.....	.83	2.87	345
Coffee, roasted.....	do.....	3.20	38.00 to 40.00	1,187 to 1,250
Milk.....	Liter.....	.30	2.60	866
Tea.....	Kilo.....	8.00	120.00	1,500
Beer.....	$\frac{1}{2}$ liter.....	.35	1.60	457

<sup>1</sup> Prager Tagblatt. Prague, Dec. 24, 1919.

<sup>2</sup> Owing to present fluctuations in the value of the crown, conversions are not made into United States money. Normally, the par value of a crown equals 20.3 cents.

## WAGES AND HOURS OF LABOR.

### Wages and Hours of Labor in the Cigar and the Men's Clothing Industries.

**A**S A part of the industrial survey of 1919 wage data were gathered concerning employees engaged in the manufacture of cigars and of men's clothing. A summary presentation of the results of the investigation of these two industries is contained in the tables included in this article.

The statistics relating to the cigar industry were obtained from establishments making cigars classed for revenue purposes as full size. Figures are not included from factories making cigarettes, little cigars, stogies, or tobies. The material for the report on the men's clothing industry was obtained from establishments making men's outer garments, coats, pants, vests, and overcoats for the trade; in other words, what is commonly known as men's ready-made clothing.

The manufacture of ready-made clothing is distinctly an urban industry, and is very largely concentrated in a few cities. The manufacture of cigars, while much more widely distributed than that of men's clothing, is still preeminently urban. Because of this peculiarity of the two industries data concerning them, unlike that of the other industries included in the survey, are presented by cities and not by States. The cities covered by the survey of each industry, and the number of establishments and the number of employees included in each city, are shown in the following table:

**TABLE 1.—NUMBER OF ESTABLISHMENTS AND NUMBER OF EMPLOYEES IN THE CIGAR AND MEN'S CLOTHING INDUSTRIES, BY CITIES.**

Cities.	Cigars.		Men's clothing.	
	Number of establishments.	Number of employees.	Number of establishments.	Number of employees.
Allentown, Pa.....	3	473		
Baltimore, Md.....	5	530	4	2,340
Binghamton, N. Y..	4	967		
Boston, Mass.....	3	614	16	808
Buffalo, N. Y.....			11	479
Chicago, Ill.....	5	663	7	6,400
Cincinnati, Ohio....	4	560	26	1,272
Cleveland, Ohio....	4	569	6	443
Dayton, Ohio.....	4	497		
Detroit, Mich.....	6	1,078		
Evansville, Ind.....	3	1,707		
Indianapolis, Ind....			2	630
Key West, Fla.....	4	1,060		
Lancaster, Pa.....	3	271		
Newark, N. J.....	2	135	11	324
New York, N. Y.....	11	3,387	21	2,094
Philadelphia, Pa....	7	1,690	15	1,424
Reading, Pa.....	4	684		
Rochester, N. Y.....			10	2,566
St. Louis, Mo.....			5	473
Tampa, Fla.....	6	1,830		
Total.....	78	16,715	134	19,253

It was not possible to arrange the survey in such a way as to obtain the records of all establishments in an industry for the same pay-roll period. Industry was in a very unsettled state during the progress of the survey. Conditions changed so rapidly that the exact date of the material presented is a matter of more importance than it would be in a normal year. The pay-roll periods included in each industry were distributed by months as shown in the following table:

TABLE 2.—NUMBER OF PAY-ROLL PERIODS IN SPECIFIED MONTHS, 1918 AND 1919.

Industry.	Total number of pay-roll periods.	Number of pay-roll periods in—									
		1918.					1919.				
		August.	September.	October.	November.	December.	January.	February.	March.	April.	May.
Cigars.....	78					6	2	21	18	14	17
Men's clothing.....	134	1	5	2	3	22	33	48	20		

It will be seen from the table that in the cigar industry 70 of the 78 pay-roll periods fell within the four months of February, March, April, and May; while in the men's clothing industry 123 of the 134 pay-roll periods fell within the months of December, January, February, and March. Information is presented as of the year 1919. In neither of the industries, so far as could be ascertained, were there any changes in rates of wages during the progress of the survey.

The information concerning hours and earnings on which the tables are based was obtained directly from the pay rolls or other records of the companies by agents of the Bureau. Other information was obtained from responsible officials in personal interviews. Wherever the records of the company failed to indicate the time actually worked by pieceworkers during the selected pay-roll period, arrangements were made to have such a record kept for a future period, from which record data were afterwards copied. In all cases the figures copied by the agents represented the hours actually worked and earnings actually received.

As the material comes in to the office the figures for hours and those for earnings are both in incommensurable form on account of inequalities in the length of pay-roll periods and in the time worked by different individual employees. Before they can be presented in tabular form it is necessary to reduce both hours and earnings to a common denominator. The comparable figures selected for use in the following tables are hours worked per day and per week, and earnings per hour and per week. These figures are obtained in the following manner:

The hours per day of each employee are obtained by dividing the number of hours worked by him during the pay-roll period by the number of week days, holidays omitted, in the pay-roll period. Thus in the case of pay rolls for a single week containing no holidays,



the hours worked by each employee during the pay-roll period are divided by six, whether the employee worked on each of the six days or not. The resulting figure represents the number of hours per day that the employee would have worked if his time had been distributed uniformly among the week days of the pay-roll period.

All the schedules used in making up the following tables were for pay-roll periods one week in length. It was therefore possible to obtain the average hours actually worked per week by the employees in any occupation by dividing the sum of the hours worked by all the employees in the occupation by the number of employees.

By full-time hours per week is meant the number of hours that is thought of in the occupation as constituting a normal week's work, the number of hours the employee regularly expects to work and the employer expects him to work. This figure was obtained from the officials of the various establishments by agents of the Bureau. The difference between full-time hours per week and average hours actually worked per week is an indication of the degree of irregularity of employment among the employees to whom the figures apply.

For comparative purposes the earnings of each employee are reduced to the form of average earnings per hour by dividing his total earnings for the pay-roll period by the total number of hours worked by him during the period. The resulting figure indicates how much he would have earned each hour he worked if his earnings had been distributed uniformly over all the hours actually worked by him during the period.

The average weekly earnings for any occupation are obtained by dividing the aggregate weekly earnings of all employees in the occupation by the number of employees engaged in it. These average actual earnings per week in each occupation, computed as described above, are brought into comparison in the tables with average full-time weekly earnings in the same occupation. In a general way the ratio of full-time earnings to actual earnings might be expected to be identical with the ratio of full-time hours to actual hours. As a matter of fact, however, these ratios may vary to a considerable extent. Actual earnings per week include the week's share of all extra pay for overtime and of all premiums and bonuses. Full-time earnings, on the other hand, represent what an employee can earn by working exactly the normal full-time hours of the establishment. The factor of extra pay for overtime, included in computing actual weekly earnings, was in general eliminated in computing full-time earnings. In those instances, however, which were comparatively rare in these industries, in which the normal working day consisted of a certain number of hours at a basic rate, and an additional hour or two at an increased rate, the extra pay for such additional hour was included in the full-time earnings. Each bonus had to be considered separately.

Those that could be earned in regular time, as, for example, bonuses for regularity of attendance, were included; those that could be earned only by working overtime were excluded; while those earned partly in regular time and partly in overtime, as indicated by the relative amount of overtime work performed, were distributed accordingly. The result of eliminating these factors of extra pay for overtime and bonus is to reduce the ratio of full-time earnings to actual earnings somewhat below the ratio of full-time hours to actual hours.

In many cigar factories the hours of work are very irregular, the employees coming and going as they please. In such factories there is no such thing as generally recognized "full-time hours." For that reason it has not been practicable to present figures for full-time hours per week or full-time weekly earnings in the cigar industry.

In the detailed tables which follow it has been necessary to omit a number of occupations owing to limitations of space. Out of a total of 12 occupations for which data were obtained in the cigar industry 10 are included in the tables. In these occupations are found 16,460 employees out of the total of 16,715 included in the survey. The corresponding figures for men's clothing are 10 out of 12 occupations, and 18,589 out of 19,253 employees.

TABLE 3.—AVERAGE HOURS WORKED AND AVERAGE EARNINGS RECEIVED IN THE CIGAR INDUSTRY, BY OCCUPATION, SEX, AND CITY.

Occupation, sex, and city.	Number of establishments.	Number of employees.	Average hours worked.		Average earnings received.	
			During one week.	Per week day.	During one week.	Per hour.
<i>Bunch makers, hand, male.</i>						
Baltimore.....	4	19	51.2	8.5	\$24.26	\$0.475
Binghamton.....	3	6	48.1	8.0	15.94	.343
Chicago.....	4	109	48.5	8.1	30.16	.619
Dayton.....	2	2	37.4	6.2	14.72	.402
Detroit.....	2	15	43.2	7.2	24.51	.564
New York.....	10	144	48.1	8.0	22.53	.469
Reading.....	3	79	49.3	8.2	19.50	.273
Tampa.....	3	162	52.4	8.7	27.96	.536
Total.....	36	557	49.3	8.2	25.92	.486
<i>Casers, male.</i>						
Allentown.....	2	10	55.3	9.2	18.93	.343
Baltimore.....	3	7	56.1	9.4	17.05	.302
Binghamton.....	3	26	52.8	8.8	15.64	.304
Boston.....	3	7	43.2	7.2	17.67	.402
Chicago.....	5	9	50.1	8.3	24.28	.487
Cincinnati.....	4	7	46.3	7.7	15.12	.327
Cleveland.....	3	9	52.4	8.7	20.31	.389
Dayton.....	3	12	55.6	9.3	20.33	.367
Detroit.....	6	10	49.4	8.2	21.40	.444
Evansville.....	2	35	55.5	9.3	13.59	.242
Key West.....	4	9	58.5	9.6	15.56	.267
Lancaster.....	2	4	52.3	8.7	16.56	.317
Newark.....	2	2	66.0	11.0	23.22	.344
New York.....	10	40	50.6	8.4	15.07	.296
Philadelphia.....	5	16	54.6	8.9	16.48	.313
Reading.....	3	7	52.3	8.7	15.63	.298
Tampa.....	6	25	57.9	9.2	18.44	.319
Total.....	66	235	53.4	8.8	16.89	.319

TABLE 3.—AVERAGE HOURS WORKED AND AVERAGE EARNINGS RECEIVED IN THE CIGAR INDUSTRY, BY OCCUPATION, SEX, AND CITY—Continued.

Occupation, sex, and city.	Number of establishments.	Number of employees.	Average hours worked.		Average earnings received.	
			During one week.	Per week day.	During one week.	Per hour.
<i>Cigar makers, male.</i>						
Baltimore.....	3	25	43.1	7.2	\$18.79	\$.437
Boston.....	3	390	36.3	6.1	25.05	.685
Chicago.....	4	155	44.1	7.3	26.55	.584
Cincinnati.....	2	246	40.8	6.5	15.33	.389
Detroit.....	3	48	42.4	7.0	19.97	.474
Key West.....	4	761	49.5	8.3	17.34	.348
Lancaster.....	3	29	48.1	8.0	17.52	.369
New York.....	5	206	42.8	7.2	19.01	.435
Philadelphia.....	2	160	50.3	8.3	19.83	.398
Reading.....	4	126	50.9	8.5	19.42	.383
Tampa.....	6	723	51.1	8.5	17.33	.340
Other cities.....	3	65	41.0	6.8	21.38	.520
Total.....	42	2,934	46.4	7.7	19.17	.424
<i>Packers, male.</i>						
Baltimore.....	3	14	41.7	7.1	20.30	.484
Binghamton.....	4	35	48.2	8.0	20.02	.413
Boston.....	3	36	34.9	5.8	28.26	.815
Chicago.....	5	38	42.4	7.0	30.82	.724
Cincinnati.....	4	35	37.3	6.2	17.10	.459
Cleveland.....	2	3	39.3	6.5	20.44	.521
Dayton.....	2	2	47.5	7.9	22.40	.470
Key West.....	4	29	42.9	7.2	31.31	.705
Lancaster.....	2	7	45.6	7.6	16.87	.364
New York.....	9	111	42.8	7.1	26.32	.627
Philadelphia.....	3	16	45.5	7.6	23.67	.528
Reading.....	4	27	45.4	7.6	18.89	.416
Tampa.....	6	55	47.5	8.1	34.49	.710
Other cities.....	3	3	45.8	7.7	26.84	.589
Total.....	51	411	43.0	7.3	26.07	.608
<i>Rollers, hand, male.</i>						
Baltimore.....	4	32	49.4	8.1	24.99	.506
Binghamton.....	4	47	41.8	7.0	14.50	.345
Chicago.....	4	158	46.8	7.8	25.98	.555
Detroit.....	2	3	45.8	7.6	28.21	.623
Key West.....	2	29	48.4	8.1	17.29	.357
New York.....	10	394	45.1	7.5	21.17	.471
Philadelphia.....	2	11	42.1	7.0	12.63	.312
Tampa.....	3	229	51.6	8.6	22.24	.434
Other cities.....	5	19	47.9	8.0	17.54	.365
Total.....	36	922	47.1	7.9	21.78	.463
<i>Banders, hand, female.</i>						
Allentown.....	2	29	39.4	7.2	10.26	.255
Baltimore.....	5	14	40.9	6.8	11.56	.291
Binghamton.....	3	12	39.8	6.6	8.96	.231
Chicago.....	5	20	47.9	8.0	11.95	.261
Cincinnati.....	2	15	38.0	6.3	7.57	.194
Cleveland.....	3	35	30.7	5.1	8.79	.272
Dayton.....	3	18	32.6	5.5	8.38	.240
Detroit.....	4	43	40.7	6.8	8.86	.220
Evansville.....	2	39	44.1	7.4	8.68	.198
Key West.....	4	43	30.1	4.9	8.41	.272
Lancaster.....	2	10	48.9	8.2	10.34	.213
New York.....	8	39	42.4	7.1	14.48	.339
Philadelphia.....	4	26	45.6	7.6	10.89	.244
Reading.....	2	7	45.8	7.6	12.29	.265
Tampa.....	6	61	40.3	6.7	10.28	.250
Other cities.....	1	3	40.2	6.7	15.67	.391
Total.....	56	414	39.5	6.5	10.07	.254



TABLE 3.—AVERAGE HOURS WORKED AND AVERAGE EARNINGS RECEIVED IN THE CIGAR INDUSTRY, BY OCCUPATION, SEX, AND CITY—Continued.

Occupation, sex, and city.	Number of establishments.	Number of employees.	Average hours worked.		Average earnings received.	
			During one week.	Per week day.	During one week.	Per hour.
<i>Bunch makers, hand, female.</i>						
Baltimore.....	4	91	40.8	6.8	\$16.52	\$0.393
Binghamton.....	4	154	44.0	7.3	16.14	.365
Chicago.....	2	5	47.8	8.0	30.63	.63
Cleveland.....	3	81	43.0	7.2	16.67	.387
Detroit.....	6	224	42.7	7.1	17.91	.418
Evansville.....	3	374	51.3	8.4	13.50	.268
Key West.....	2	24	48.1	8.0	10.61	.217
New York.....	9	571	46.5	8.1	21.83	.452
Philadelphia.....	2	63	38.7	6.5	17.36	.449
Reading.....	3	28	45.7	7.6	17.61	.388
Tampa.....	3	38	52.0	8.7	22.44	.438
Other cities.....	3	68	45.6	7.6	14.49	.316
Total.....	44	1,721	46.9	7.8	17.84	.384
<i>Bunch makers, machine, female.</i>						
Allentown.....	2	99	50.4	8.4	21.63	.430
Cleveland.....	3	42	46.2	7.7	17.29	.374
Dayton.....	3	107	43.9	7.3	14.20	.321
Detroit.....	3	54	44.1	7.4	17.77	.399
New York.....	3	122	44.3	7.4	18.65	.420
Philadelphia.....	4	209	48.5	8.0	17.54	.361
Reading.....	2	18	49.2	8.2	20.43	.413
Other cities.....	5	161	45.2	7.5	15.75	.345
Total.....	25	812	44.6	7.7	17.48	.374
<i>Cigar makers, hand, female.</i>						
Boston.....	3	65	35.5	6.0	19.74	.561
Cleveland.....	4	20	41.4	6.9	17.16	.427
Detroit.....	2	9	42.6	7.1	18.96	.442
Key West.....	2	4	43.2	7.2	12.10	.254
Lancaster.....	2	17	45.5	7.6	15.72	.346
Philadelphia.....	2	36	42.4	7.1	15.94	.376
Reading.....	4	56	45.8	7.6	15.39	.337
Tampa.....	5	81	51.0	8.5	18.22	.360
Other cities.....	5	37	39.5	6.4	18.16	.453
Total.....	29	325	43.5	7.2	19.12	.413
<i>Packers, female.</i>						
Allentown.....	2	36	41.8	7.5	15.57	.375
Baltimore.....	2	28	38.7	6.9	13.65	.351
Binghamton.....	3	32	40.2	6.7	14.76	.370
Cleveland.....	4	36	33.9	5.7	13.92	.410
Dayton.....	3	33	38.3	6.4	14.50	.371
Detroit.....	6	51	39.8	6.6	19.29	.483
Evansville.....	3	97	43.1	7.2	11.43	.268
Lancaster.....	3	16	39.1	6.5	12.71	.326
New York.....	5	59	43.4	7.2	19.75	.457
Philadelphia.....	5	96	43.6	7.2	15.61	.365
Reading.....	2	17	41.0	6.8	16.63	.405
Other cities.....	4	10	34.9	5.8	16.54	.398
Total.....	42	511	41.1	6.9	15.27	.375
<i>Rollers, hand, female.</i>						
Baltimore.....	4	36	45.7	7.6	21.25	.458
Binghamton.....	4	356	44.7	7.5	15.20	.339
Chicago.....	4	47	44.8	7.5	24.10	.539
Cleveland.....	3	52	39.9	6.6	14.28	.357
Dayton.....	2	62	41.3	6.9	13.58	.333
Detroit.....	6	399	42.4	7.1	17.04	.400
Evansville.....	3	761	49.1	8.4	11.44	.232
Lancaster.....	2	18	50.2	8.4	15.41	.309
New York.....	8	779	47.7	8.0	18.94	.398
Philadelphia.....	3	215	37.6	6.3	15.97	.422
Reading.....	2	83	45.7	7.6	19.54	.429
Tampa.....	3	194	55.1	8.3	21.84	.438
Other cities.....	1	64	46.0	7.7	13.02	.282
Total.....	45	3,066	46.3	7.7	18.77	.354

TABLE 3.—AVERAGE HOURS WORKED AND AVERAGE EARNINGS RECEIVED IN THE CIGAR INDUSTRY, BY OCCUPATION, SEX, AND CITY—Concluded.

Occupation, sex, and city.	Number of establishments.	Number of employees.	Average hours worked.		Average earnings received.	
			During one week.	Per week day.	During one week.	Per hour.
<i>Rollers, suction, female.</i>						
Allentown.....	2	203	49.7	8.3	\$20.82	\$0.417
Baltimore.....	2	153	40.7	6.8	14.74	.357
Cleveland.....	2	141	43.6	7.3	15.97	.364
Dayton.....	2	151	42.9	7.1	13.14	.309
Lancaster.....	2	73	44.5	7.4	15.57	.349
New York.....	5	465	47.0	7.9	17.91	.381
Philadelphia.....	3	397	48.6	8.1	16.22	.388
Other cities.....	4	196	44.8	7.5	15.57	.345
Total.....	22	1,779	46.1	7.7	16.57	.359
<i>Stemmers or strippers, hand, female.</i>						
Allentown.....	2	81	47.6	7.9	10.21	.215
Baltimore.....	5	38	44.4	7.4	8.78	.192
Binghamton.....	4	184	42.5	7.1	8.98	.216
Boston.....	2	94	38.6	6.5	11.14	.294
Chicago.....	5	98	44.6	7.4	11.55	.257
Cincinnati.....	3	45	37.9	6.3	6.32	.169
Cleveland.....	4	92	39.6	6.6	9.45	.244
Dayton.....	4	61	47.0	7.8	9.08	.194
Detroit.....	5	153	41.2	6.9	10.56	.256
Evansville.....	3	334	44.2	7.4	6.45	.145
Key West.....	4	157	43.2	7.2	7.83	.183
Lancaster.....	3	12	48.0	8.0	9.38	.199
New York.....	11	348	47.6	7.9	11.05	.233
Philadelphia.....	6	354	42.6	7.1	10.85	.188
Reading.....	4	78	41.7	7.1	10.38	.246
Tampa.....	6	258	49.2	8.2	9.71	.196
Other cities.....	1	5	53.9	9.0	9.12	.167
Total.....	72	2,392	44.3	7.4	9.57	.207
<i>Stemmers or strippers, machine, female.</i>						
Allentown.....	2	15	42.5	7.1	9.82	.220
Baltimore.....	2	24	45.2	7.6	11.38	.253
Binghamton.....	4	34	45.3	7.5	9.82	.221
Boston.....	3	18	39.1	7.4	12.73	.325
Chicago.....	3	4	47.9	8.0	14.20	.298
Cincinnati.....	3	30	41.6	6.9	10.11	.245
Cleveland.....	3	20	44.9	7.5	12.64	.279
Dayton.....	3	26	39.7	6.6	8.95	.215
Detroit.....	5	39	41.7	6.9	11.04	.267
Newark.....	2	6	54.0	9.0	8.65	.163
New York.....	4	34	48.5	8.9	12.56	.259
Philadelphia.....	4	47	47.0	7.6	9.38	.201
Reading.....	3	24	38.7	6.5	10.43	.275
Other cities.....	3	60	45.4	7.6	8.29	.189
Total.....	44	381	44.1	7.4	10.31	.236
All occupations, male.....		5,059	46.9	7.8	20.84	.448
All occupations, female.....		11,401	45.2	7.5	15.54	.325
All occupations, male and female.....		16,460	45.7	7.6	17.17	.363

TABLE 4.—AVERAGE ACTUAL AND FULL-TIME HOURS AND EARNINGS IN THE MEN'S CLOTHING INDUSTRY, BY OCCUPATION, SEX, AND CITY.

Occupation, sex, and city.	Number of establishments.	Number of employees.	Average hours actually worked.		Full time hours per week.	Average earnings actually made.		Full time earnings per week.
			Per week day.	Per week.		Per hour.	Per week.	
<i>Basters, hand, coats, male.</i>								
Baltimore.....	3	89	7.3	43.9	48.0	\$0.649	\$28.23	\$31.15
Boston.....	7	66	7.1	42.5	45.7	.499	21.28	22.72
Buffalo.....	4	19	7.9	47.2	48.0	.416	19.70	19.95
Chicago.....	5	284	7.2	43.4	48.0	.506	21.99	24.16
Cincinnati.....	3	19	8.1	48.6	50.0	.464	22.12	23.19
Indianapolis.....	2	9	8.4	50.4	48.0	.455	22.84	22.17
Newark.....	5	39	7.3	43.8	45.2	.455	19.84	20.44
New York.....	10	192	7.6	45.3	46.3	.503	22.89	23.27
Philadelphia.....	8	139	7.6	45.5	48.0	.490	22.40	23.42
Rochester.....	4	162	7.7	46.3	48.0	.515	23.86	24.59
St. Louis.....	2	5	6.9	41.4	49.2	.401	17.50	20.01
Other cities.....	1	4	9.0	53.8	53.8	.416	22.50	22.40
Total.....	54	1,027	7.5	44.8	47.5	.511	22.87	24.19
<i>Bushelers and tailors, male.</i>								
Baltimore.....	4	101	8.0	47.9	48.0	.586	27.89	27.77
Boston.....	5	34	7.6	45.3	45.5	.529	23.96	24.07
Buffalo.....	2	5	8.3	50.0	50.0	.280	14.00	14.01
Chicago.....	5	189	7.8	46.7	48.0	.431	20.17	20.46
Cincinnati.....	8	39	8.0	48.0	49.3	.371	17.78	18.25
Cleveland.....	4	12	7.8	47.0	49.0	.468	21.98	22.83
Indianapolis.....	2	33	7.9	47.1	48.0	.470	22.15	22.78
Newark.....	4	14	6.9	41.1	45.3	.534	21.73	23.66
New York.....	12	122	7.8	46.5	46.6	.478	22.19	21.97
Philadelphia.....	8	52	9.5	56.9	52.0	.404	22.47	20.59
Rochester.....	5	63	7.8	46.6	48.0	.501	23.52	23.91
St. Louis.....	2	2	8.2	49.0	49.0	.481	23.50	23.51
Total.....	61	666	7.9	47.6	48.0	.473	22.39	22.42
<i>Cutters, cloth, hand, male.</i>								
Baltimore.....	4	211	6.9	41.3	48.0	.659	27.17	31.59
Boston.....	5	66	6.5	38.7	44.5	.840	31.43	37.01
Buffalo.....	4	31	7.9	47.3	48.0	.505	23.89	24.23
Chicago.....	5	1,456	7.4	44.2	48.0	.593	26.21	28.45
Cincinnati.....	8	103	7.3	43.8	48.3	.552	24.12	26.56
Cleveland.....	3	11	7.1	42.3	48.6	.529	22.36	25.82
Indianapolis.....	2	25	7.2	43.3	48.0	.427	18.62	20.28
Newark.....	3	11	7.8	46.5	46.5	.613	28.45	28.45
New York.....	12	193	7.5	45.2	46.9	.697	31.37	32.55
Philadelphia.....	5	103	6.8	40.6	48.0	.619	25.07	29.72
Rochester.....	4	133	6.9	41.4	48.0	.663	27.26	29.79
St. Louis.....	3	59	8.0	47.8	48.0	.555	26.45	26.64
Total.....	58	1,402	7.2	43.3	47.7	.628	26.98	29.63
<i>Cutters, cloth, machine, male.</i>								
Baltimore.....	3	8	6.7	40.1	48.0	.609	23.87	28.56
Buffalo.....	3	7	8.0	47.9	48.0	.501	23.99	24.06
Chicago.....	3	54	7.3	43.9	48.0	.674	29.26	32.35
Cincinnati.....	6	13	7.4	44.5	48.3	.553	24.51	26.62
Cleveland.....	2	12	8.0	48.1	48.6	.660	31.90	31.50
Newark.....	2	2	7.7	46.0	46.0	.608	28.00	28.00
New York.....	7	18	7.0	42.0	46.7	.753	31.79	35.27
Philadelphia.....	4	28	7.6	45.7	48.0	.583	25.62	27.76
Rochester.....	3	9	6.0	36.2	48.0	.674	23.73	32.34
St. Louis.....	4	22	7.7	45.9	48.3	.564	26.19	27.23
Other cities.....	1	1	8.0	48.0	48.0	.481	23.10	23.09
Total.....	38	174	7.4	44.2	47.9	.632	27.58	30.17
<i>Examiners, male.</i>								
Baltimore.....	3	63	7.7	46.2	48.0	.544	25.38	25.66
Boston.....	8	23	7.5	45.1	45.8	.486	21.96	22.25
Buffalo.....	2	4	8.1	48.8	48.8	.462	22.50	22.50
Chicago.....	5	136	7.6	45.6	48.0	.489	21.88	21.71
Cincinnati.....	9	22	8.1	48.6	49.3	.405	19.74	19.95
Cleveland.....	3	19	7.5	45.1	48.0	.558	25.16	26.74
Indianapolis.....	2	19	8.0	47.9	48.0	.478	23.00	23.29

<sup>1</sup> Including 303 hand or machine cutters.<sup>2</sup> Including 10 hand or machine cutters.<sup>3</sup> Including 313 hand or machine cutters.



TABLE 4.—AVERAGE ACTUAL AND FULL-TIME HOURS AND EARNINGS IN THE MEN'S CLOTHING INDUSTRY, BY OCCUPATION, SEX, AND CITY—Continued.

Occupation, sex, and city.	Number of establishments.	Number of employees.	Average hours actually worked.		Full time hours per week.	Average earnings actually made.		Full time earnings per week.
			Per week day.	Per week.		Per hour.	Per week.	
<i>Examiners, male—Concluded.</i>								
Newark.....	4	6	7.8	46.7	46.7	\$0.489	\$22.58	\$22.58
New York.....	14	87	8.0	48.1	46.6	.490	23.58	22.70
Philadelphia.....	7	58	7.8	46.5	48.3	.446	20.71	21.39
Rochester.....	6	48	8.0	48.2	48.0	.475	23.06	22.71
St. Louis.....	2	3	8.3	50.0	50.3	.340	16.33	17.07
Total.....	65	488	7.8	46.7	47.8	.487	22.67	22.65
<i>Fitters or trimmers, male.</i>								
Baltimore.....	4	48	7.0	41.8	48.0	.613	25.74	29.36
Boston.....	8	19	7.5	45.0	45.9	.577	25.98	26.40
Buffalo.....	4	4	8.0	47.9	48.5	.500	24.13	23.57
Chicago.....	5	83	7.4	44.5	48.0	.656	28.64	31.25
Cincinnati.....	8	16	7.8	46.6	48.6	.416	19.50	20.12
Cleveland.....	4	5	8.3	49.8	48.0	.565	27.94	27.10
Indianapolis.....	2	5	8.3	49.8	48.0	.440	22.10	21.20
Newark.....	5	7	7.8	46.6	46.6	.571	26.43	26.43
New York.....	18	37	7.3	43.7	46.7	.590	25.72	27.46
Philadelphia.....	9	24	7.6	45.6	48.0	.487	22.08	23.30
Rochester.....	7	40	7.4	44.1	48.0	.504	22.07	24.14
Other cities.....	1	1	8.0	48.0	48.0	.417	20.00	20.00
Total.....	75	289	7.4	44.4	47.7	.576	25.38	27.37
<i>Operators, male.</i>								
Baltimore.....	4	380	7.4	44.6	48.0	.616	27.55	29.61
Boston.....	15	140	7.2	43.0	45.8	.600	26.15	27.28
Buffalo.....	9	56	7.7	46.2	48.2	.530	24.31	25.47
Chicago.....	6	709	7.4	44.2	48.0	.572	25.31	27.29
Cincinnati.....	7	27	8.0	47.7	49.9	.470	22.43	23.57
Cleveland.....	5	21	7.1	42.4	49.8	.500	21.12	25.01
Indianapolis.....	2	20	7.9	47.1	48.0	.527	29.86	24.99
Newark.....	9	58	7.5	45.1	46.7	.576	26.12	26.68
New York.....	17	482	7.4	44.6	46.8	.417	29.56	30.92
Philadelphia.....	14	242	7.8	46.8	48.0	.599	28.07	28.67
Rochester.....	8	188	7.9	47.2	48.0	.553	26.13	26.43
St. Louis.....	5	26	8.0	48.0	50.0	.412	19.94	20.52
Total.....	101	2,349	7.5	44.9	47.7	.545	26.80	28.27
<i>Pressers, hand, male.</i>								
Baltimore.....	4	148	7.5	45.0	48.0	.593	26.83	28.20
Boston.....	12	58	6.9	41.1	45.2	.623	25.77	28.18
Buffalo.....	7	41	7.5	44.8	48.0	.552	24.68	26.44
Chicago.....	6	539	7.2	42.9	48.0	.617	26.36	29.58
Cincinnati.....	20	123	7.9	47.5	49.0	.390	18.54	19.10
Cleveland.....	4	17	7.8	46.5	49.7	.550	25.21	27.21
Indianapolis.....	2	60	7.8	46.6	48.0	.458	21.35	22.01
Newark.....	9	43	7.3	43.8	46.8	.588	25.48	27.17
New York.....	18	225	7.7	46.1	46.5	.538	24.86	24.96
Philadelphia.....	11	111	7.8	46.5	48.3	.497	23.27	23.87
Rochester.....	9	256	7.4	44.5	48.0	.523	23.30	25.06
St. Louis.....	2	3	5.9	35.6	48.7	.437	15.05	21.26
Total.....	104	1,624	7.4	44.6	47.8	.555	24.60	26.40
<i>Pressers, machine, male.</i>								
Baltimore.....	3	170	7.5	44.8	48.0	.643	28.48	30.79
Boston.....	10	64	7.1	42.5	45.9	.510	21.85	23.51
Buffalo.....	10	42	7.9	47.4	48.3	.415	20.25	20.01
Chicago.....	5	408	7.4	44.3	48.0	.559	24.40	26.60
Cincinnati.....	16	65	8.0	47.8	49.3	.391	18.52	19.32
Cleveland.....	4	31	7.1	42.7	48.0	.559	24.27	26.62
Indianapolis.....	2	33	7.5	45.0	48.0	.353	16.02	16.90
Newark.....	4	27	7.4	44.1	45.3	.563	24.71	24.94
New York.....	13	103	7.7	46.0	46.7	.562	25.96	26.18
Philadelphia.....	8	98	7.5	45.2	48.0	.501	22.92	24.01
Rochester.....	8	229	7.8	47.0	48.0	.505	23.62	24.15
St. Louis.....	5	38	7.9	47.2	50.2	.391	18.54	19.63
Total.....	88	1,308	7.6	45.3	47.9	.531	23.88	25.28

TABLE 4.—AVERAGE ACTUAL AND FULL-TIME HOURS AND EARNINGS IN THE MEN'S CLOTHING INDUSTRY, BY OCCUPATION, SEX, AND CITY—Concluded.

Occupation, sex, and city.	Number of establishments.	Number of employees.	Average hours actually worked.		Full time hours per week.	Average earnings actually made.		Full time earnings per week.
			Per week day.	Per week.		Per hour.	Per week.	
<i>Basters, hand, female.</i>								
Baltimore.....	4	115	7.1	42.7	48.0	\$0.372	\$15.84	\$17.74
Boston.....	15	57	7.3	43.6	45.5	.312	13.60	14.17
Buffalo.....	5	40	7.7	46.1	48.0	.323	14.83	15.51
Chicago.....	5	417	7.4	44.2	48.0	.389	17.18	18.61
Cincinnati.....	12	63	7.4	44.5	49.4	.261	11.63	12.92
Cleveland.....	3	19	7.2	43.2	48.1	.332	15.28	15.93
Indianapolis.....	2	58	7.6	45.5	48.0	.301	13.65	14.47
Newark.....	8	33	7.6	45.7	46.7	.326	14.89	14.99
New York.....	15	61	7.7	46.1	47.5	.329	15.30	15.56
Philadelphia.....	11	94	7.3	43.9	48.1	.287	12.73	13.79
Rochester.....	9	237	7.3	43.8	48.0	.325	14.33	15.60
Other cities.....	1	1	7.7	46.0	48.0	.336	15.45	16.13
Total.....	90	1,195	7.4	44.2	47.9	.344	15.23	16.43
<i>Examiners, female.</i>								
Baltimore.....	3	17	7.3	43.5	48.0	.295	14.30	13.56
Chicago.....	3	45	6.9	41.2	48.0	.374	15.56	16.05
Cincinnati.....	4	5	8.6	51.6	50.0	.248	12.75	12.40
Cleveland.....	2	10	7.8	47.0	48.0	.385	18.04	18.50
New York.....	3	6	8.6	51.6	47.7	.290	14.83	13.82
Philadelphia.....	2	9	6.6	39.4	48.0	.272	10.45	13.13
Rochester.....	5	9	7.9	47.4	48.0	.352	16.64	16.87
St. Louis.....	2	19	7.8	46.5	50.3	.214	9.84	10.74
Other cities.....	1	2	8.2	49.3	48.0	.388	19.25	19.25
Total.....	25	122	7.4	44.2	48.4	.321	14.23	14.71
<i>Hand sewers, female.</i>								
Baltimore.....	4	454	7.0	42.0	48.0	.386	16.16	18.42
Boston.....	14	175	7.2	43.0	45.8	.314	13.37	14.34
Buffalo.....	11	105	7.5	45.1	48.2	.259	11.61	12.47
Chicago.....	6	1,418	7.2	43.3	48.0	.349	15.20	14.99
Cincinnati.....	22	301	7.4	44.6	49.1	.239	10.64	11.72
Cleveland.....	6	60	7.0	41.7	48.1	.310	13.09	14.92
Indianapolis.....	2	179	7.2	43.2	48.0	.245	10.55	11.75
Newark.....	9	43	7.6	45.6	46.7	.306	13.89	14.15
New York.....	18	368	7.4	44.6	46.6	.341	15.13	15.83
Philadelphia.....	15	227	7.5	44.9	48.1	.286	12.65	13.68
Rochester.....	10	566	7.5	44.7	48.0	.324	14.51	15.46
St. Louis.....	4	48	7.0	41.9	50.1	.211	8.87	10.52
Total.....	121	3,944	7.3	43.7	47.9	.326	14.20	14.90
<i>Operators, female.</i>								
Baltimore.....	4	423	7.2	43.4	48.0	.383	16.51	18.09
Boston.....	11	45	7.1	42.6	46.0	.361	15.05	16.56
Buffalo.....	10	106	7.4	44.6	48.1	.282	12.63	13.55
Chicago.....	6	1,469	7.2	43.3	48.0	.392	17.00	18.73
Cincinnati.....	25	430	7.4	44.3	49.0	.246	10.47	12.04
Cleveland.....	7	195	6.8	41.0	48.1	.385	15.74	18.55
Indianapolis.....	2	146	6.9	41.5	48.0	.303	12.61	14.55
Newark.....	7	32	7.2	43.4	46.5	.337	14.49	15.47
New York.....	13	154	7.4	44.1	46.8	.377	16.52	17.57
Philadelphia.....	9	207	7.3	44.0	48.0	.326	14.20	15.65
Rochester.....	10	560	7.5	44.8	48.0	.363	16.17	17.40
St. Louis.....	5	234	7.8	46.7	50.1	.265	12.52	13.20
Total.....	109	4,001	7.3	43.8	48.1	.353	15.32	16.88

The last previous investigation of the cigar industry made by the Bureau was carried out in 1913; for the men's clothing industry the date was 1914. Table 5 gives relative hourly earnings for a number of selected occupations in the cigar industry, and Table 6 gives relative full-time hours, hourly earnings, and full-time earnings for the men's clothing industry. For reasons already stated it is impracticable to compute full-time hours or full-time earnings for the cigar industry. The figures for 1913 are in all cases used as the base. The comparison is necessarily confined to those occupations for which the requisite information in comparable form is at hand. The table also gives a relative for each industry as a whole. It seems desirable to point out certain features of the method by which the latter relatives were computed. In the first place the averages of hours and earnings on which the 1919 relative is based covered only selected occupations. In earlier years the relatives have been based on all wage-earning employees found in the establishments visited. Those employees who did not fall within any of the selected occupations were grouped in the tables under the caption "other employees." This was done not because of any value that was supposed to attach to figures for this heterogeneous group, but because it was feared that the omission of these employees might seriously affect the averages for the industry as a whole. Careful experiments carried out by the Bureau indicate that, if the selected occupations include low-paid groups, such as laborers, in proportion to their numbers in the industry, the omission of "other employees" has little effect upon industry averages.

In the second place it should be stated that the industry averages given in the table are based on all of the occupations listed in the several industries and not on those to which limitations of space made it necessary to confine the detailed tables already presented. The total number of selected occupations used in computing the industry relative was eight in the cigar industry and eight in the men's clothing industry.

In the third place the effect of bonuses and of extra pay for overtime in increasing hourly earnings has been carefully noted and every effort has been put forth to make the full-time weekly earnings represent exactly what the employees would earn by working the full-time hours of the occupation and no more. For that purpose not only has the extra pay for overtime been eliminated but also every bonus which it required overtime work to secure. On the other hand, attendance bonuses and others which could be earned in regular time have been included in the hourly rates from which full-time earnings were computed.



Finally no attempt has been made to base the relatives on data from identical establishments. With the changes that the lapse of time since the last investigation has brought about in the different establishments the plan of confining the comparison to data from identical establishments would have two disadvantages. It would in some cases seriously limit the numbers on which the comparative figures are based; in other cases it might give undue weight to changes in hours and earnings taking place in one or another of the limited number of establishments covered, when those changes did not reflect conditions in the industry as a whole. The present relatives are based on the entire body of information available for each year for which a relative is shown.

TABLE 5.—AVERAGE AND RELATIVE HOURLY EARNINGS IN THE CIGAR INDUSTRY, BY OCCUPATION, SEX, AND YEAR.

Sex and occupation.	Year.	Average earnings per hour.	Relative earnings per hour.
<i>Males.</i>			
Bunch makers, hand.....	1913	\$0.303	100
	1919	.469	160
Cigar makers, hand.....	1913	.316	100
	1919	.424	134
Packers.....	1913	.477	100
	1919	.608	127
Rollers, hand.....	1913	.301	100
	1919	.463	154
Stemmers or strippers, hand.....	1913	.153	100
	1919	.219	143
<i>Females.</i>			
Banders, hand.....	1913	.161	100
	1919	.254	158
Bunch makers, hand.....	1913	.234	100
	1919	.384	164
Bunch makers, machine.....	1913	.203	100
	1919	.374	184
Cigar makers, hand.....	1913	.256	100
	1919	.413	161
Packers.....	1913	.226	100
	1919	.375	166
Rollers, hand.....	1913	.230	100
	1919	.354	154
Rollers, suction.....	1913	.186	100
	1919	.359	193
Stemmers or strippers, hand.....	1913	.128	100
	1919	.207	162
<i>All occupations.....</i>			
	1913	.237	100
	1919	.363	153

TABLE 6.—AVERAGE AND RELATIVE FULL-TIME HOURS PER WEEK, HOURLY EARNINGS, AND FULL-TIME EARNINGS PER WEEK IN THE MEN'S CLOTHING INDUSTRY, BY OCCUPATION, SEX, AND YEAR.

Occupation, sex, and year.	Average.			Relative.		
	Full-time hours per week.	Hourly earnings.	Full-time weekly earnings.	Full-time hours per week.	Hourly earnings.	Full-time weekly earnings.
<b>Basters, coat, male:</b>						
1913.....	52.5	\$0.267	\$14.00	100	100	100
1914.....	52.1	.257	13.33	99	96	95
1919.....	47.5	.511	24.19	90	191	173
<b>Bushelers and tailors, male:</b>						
1913.....	52.2	.273	14.23	100	100	100
1914.....	51.6	.282	14.56	99	103	102
1919.....	48.0	.473	22.42	92	173	158
<b>Cutters, cloth, hand, male:</b>						
1913.....	49.0	.432	21.08	100	100	100
1914.....	48.6	.446	21.66	99	103	103
1919.....	47.7	.628	29.63	97	145	141
<b>Cutters, cloth, machine, male:</b>						
1913.....	49.3	.451	22.19	100	100	100
1914.....	48.4	.470	22.74	98	104	102
1919.....	47.9	.632	30.17	97	140	136
<b>Examiners, male:</b>						
1913.....	51.8	.303	15.63	100	100	100
1914.....	51.2	.317	16.18	99	105	104
1919.....	47.8	.487	22.65	92	161	145
<b>Fitters or trimmers, coat, male:</b>						
1913.....	52.2	.348	18.15	100	100	100
1914.....	51.7	.332	17.13	99	95	94
1919.....	47.7	.575	27.24	91	165	150
<b>Sewers, hand, coat, male:</b>						
1913.....	52.2	.256	13.34	100	100	100
1914.....	52.1	.270	14.04	100	105	105
1919.....	47.8	.446	21.05	92	174	158
<b>Operators, male:</b>						
1913.....	52.5	.312	16.33	100	100	100
1914.....	52.1	.316	16.44	99	101	101
1919.....	47.7	.545	28.27	91	175	173
<b>Pressers, hand, male:</b>						
1913.....	52.3	.298	15.55	100	100	100
1914.....	51.9	.292	15.15	99	98	97
1919.....	47.8	.555	26.40	91	186	170
<b>Shapers, coat, male:</b>						
1913.....	52.4	.342	17.91	100	100	100
1914.....	51.9	.343	17.74	99	100	99
1919.....	47.8	.577	27.41	91	169	152
<b>Basters, hand, female:</b>						
1913.....	52.5	.184	9.66	100	100	100
1914.....	51.9	.189	9.81	99	103	102
1919.....	47.9	.344	16.43	91	187	170
<b>Sewers, hand, female:</b>						
1913.....	52.2	.177	9.23	100	100	100
1914.....	51.7	.173	8.91	99	98	97
1919.....	47.9	.326	14.90	92	184	161
<b>Operators, female:</b>						
1913.....	52.2	.204	10.62	100	100	100
1914.....	51.7	.214	11.10	99	105	105
1919.....	48.1	.353	16.88	92	173	159
<b>All occupations:</b>						
1913.....	52.0	.264	13.63	100	100	100
1914.....	51.5	.265	13.56	99	100	99
1919.....	47.9	.449	21.24	92	170	156

The industrial survey covered eight industries for which the Bureau had material on hand for the calculation of industry relatives. That the increases in earnings in the industries included in this report may be compared with increases in the other six industries, the relatives of each industry are given in the following table:

TABLE 7.—RELATIVE EARNINGS PER HOUR IN EIGHT INDUSTRIES: 1914, 1915 AND 1919 COMPARED WITH 1913.

[1913=100.]

Year.	Cigars.	Clothing, men's.	Furni- ture.	Hosiery and un- derwear.	Iron and steel.	Lumber.	Mill- work.	Silk goods.
1913.....	100	100	100	100	100	100	100	100
1914.....	(1)	(1)	(1)	103	103	(1)	(1)	100
1915.....	(1)	(1)	103	(1)	101	91	99	(1)
1919.....	152	171	154	184	221	194	151	191

<sup>1</sup> Not reported.

An examination of the table shows that in the spring of 1919, at which time the survey was carried out, employees in the cigar-making industry had received increases over the 1913 level of earnings amounting on the average to 52 per cent; at the same date the increase in the men's clothing industry amounted to 71 per cent. Over against this should be set the increase in the cost of living during the same period. According to the careful estimates made by the Bureau this had amounted to 75 per cent in the spring of 1919 as compared with the 1913 level. It will be noticed that only employees in the millwork industry had received a lower rate of increase during the period under consideration than the cigar employees had received, while the increase in the men's clothing industry had followed very closely the increase in the cost of living.



## Hours of Labor of Hotel and Restaurant Employees.

By DOROTHY POPE.

**A**N ARTICLE on wages and hours of hotel and restaurant employees, in the MONTHLY LABOR REVIEW for September, 1919 (pp. 190-217), outlined the general scope of the investigation of this industry made by the Bureau in 1919 in 26 large cities of the country, and presented the daily rates of wages received by these employees. The number of days in the working week, the full-time weekly hours, and the arrangement of the daily hours of work prevailing in the industry are dealt with in this article.

### Days in the Working Week.

**A**LL hotels and the majority of restaurants operate at least 13 hours a day every day throughout the year. Because they serve the public they can not close their doors at their own convenience on one day a week, and if they are to give employees one day of rest in seven, schedules of work must be so arranged that the absence of employees will not interfere with the service rendered the public. Many hotels and restaurants have accomplished this by maintaining relief employees for each occupation or group of small related occupations; but many others still arrange a seven-day working schedule for all or part of their employees. Nearly half the men and over half the women in hotels and about one-third of the men and one-fourth of the women in restaurants included in the survey work seven days a week. Some hotels in the transitional stage between a seven and a six day working week allow certain classes of employees a day off every two weeks or a half day off every week. The following table shows, by occupation, the percentage of hotel and restaurant employees who are entitled to be off duty each specified number of days.

TABLE 1.—PER CENT OF HOTEL AND RESTAURANT EMPLOYEES ENTITLED TO EACH SPECIFIED NUMBER OF DAYS OFF DUTY, BY OCCUPATION.

Occupation.	Sex.	Hotels.					Restaurants. <sup>1</sup>				
		Number of establishments.	Per cent of employees whose days off are—				Number of employees.	Per cent of employees whose days off are—			
			None.	1 a week or 4 a month, with pay.	1 a week, without pay.	1 every 2 weeks, or 2 a month, or 1 a week, with pay.		None.	1 a week or 4 a month, with pay.	1 a week, without pay.	1 every 2 weeks, or 2 a month, or 1 a week, with pay.
Bell boys.....	M.	147	85	5	.....	9	1	.....	.....	.....	.....
'Buses.....	F.	56	7	93	.....	.....	.....	.....	.....	.....	.....
Butchers and oyster men.....	M.	116	40	43	6	11	( <sup>2</sup> )	35	16	42	6
Checkers.....	F.	24	49	41	4	.....	.....	29	4	62	5
Cleaners.....	M.	74	21	63	5	6	4	27	21	50	2
Cooks.....	F.	5	60	40	.....	.....	.....	.....	.....	.....	.....
Dishwashers.....	M.	38	46	46	.....	8	.....	23	24	52	2
Door men.....	F.	128	41	48	.....	10	.....	29	5	56	10
Housekeepers.....	M.	82	66	19	.....	13	.....	44	9	44	3
House men.....	F.	97	64	28	.....	5	.....	28	3	68	1
Kitchen help and utility men.....	M.	1,001	72	77	.....	2	.....	27	14	55	4
Linen-room employees.....	F.	145	19	72	.....	2	.....	22	6	65	7
Maids.....	M.	55	49	45	.....	4	.....	45	14	38	3
Pantry and counter servers.....	F.	120	53	24	.....	13	.....	31	4	61	3
Porters, baggage.....	M.	106	54	34	.....	8	.....	40	.....	60	.....
Stewards and storeroom helpers.....	F.	52	71	2	.....	27	.....	.....	.....	.....	.....
	M.	1	100	.....	.....	.....	.....	.....	.....	.....	.....
	F.	1	69	14	.....	15	.....	.....	.....	.....	.....
	M.	147	52	12	.....	24	.....	.....	.....	.....	.....
	F.	146	52	12	.....	24	.....	.....	.....	.....	.....
	M.	135	47	32	.....	15	.....	41	10	43	7
	F.	90	37	43	.....	15	.....	21	7	67	3
	M.	37	46	54	.....	.....	.....	.....	.....	.....	.....
	F.	12	41	42	.....	10	.....	28	26	41	5
	M.	126	41	42	.....	10	.....	.....	.....	.....	.....
	F.	152	74	12	.....	13	.....	.....	.....	.....	.....
	M.	4,176	27	56	.....	13	.....	44	12	38	6
	F.	81	27	56	.....	13	.....	22	3	72	3
	M.	539	41	40	.....	11	.....	.....	.....	.....	.....
	F.	98	76	15	.....	3	.....	.....	.....	.....	.....
	M.	324	46	34	.....	16	.....	33	13	44	9
	F.	109	9	73	.....	12	.....	.....	.....	89	11
	M.	27	9	.....	.....	.....	.....	.....	.....	.....	.....
	F.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Waiters.....	M.	114	4,541	25	52	14	9	(2)	145	26	15	57	2	(3)
	F.	76	1,162	33	53	12	2	(3)	134	22	3	73	2	(3)
Waiters, helps' hall.....	M.	44	150	49	41	5	4		3		100			
	F.	43	230	36	48	3	5	8	6	40	20	40		
Total.....	M.	153	16,414	43	38	6	11	2	256	33	14	49	4	(2)
	F.	153	10,079	58	29	3	10	1	234	24	4	68	3	1
Grand total.....		153	26,493	48	35	5	10	2	258	29	10	57	4	(2)

<sup>1</sup> Not including 532 males and 788 females whose days off were not available from the pay-roll records.

<sup>2</sup> Less than one-half of 1 per cent.



In this table an employee is credited with receiving a half day off a week only when his hours off duty on this day are at least half his regular working hours or his work is completed by 1 p. m. Employees receiving one day off a week are shown in two groups, according to whether they receive this day off with pay or without pay, or, in other words, whether they are paid for a seven-day or a six-day week. The proportion of hotel and restaurant employees paid on a six-day basis reflects the degree to which establishments in this industry have adopted the straight six-day week, now the standard in other industries. In hotels 14 per cent of the men and 9 per cent of the women who have a day off a week are paid on this basis. In restaurants the proportion is much higher. About one-fourth of the male restaurant employees and two-fifths of the females were found in restaurants that close on Sunday; these employees necessarily fall in the class paid on the six-day basis. In the restaurants open on Sunday 63 per cent of the men and 87 per cent of the women who have a day off every week are paid on the same basis. It is also true that the percentage of both male and female employees receiving a day off a week is much larger in restaurants than in hotels.

The following table presents by cities the same information as Table 1, thus enabling comparisons to be made between different parts of the country in this respect.

TABLE 2.—PER CENT OF HOTEL AND RESTAURANT EMPLOYEES ENTITLED TO EACH SPECIFIED NUMBER OF DAYS OFF DUTY, BY CITY.

City.	Sex.	Hotels.							Restaurants.								
		Number of establishments.	Number of employees.	Per cent of employees whose days off are—					Number of establishments—	Open Sunday.	Closed Sunday.	Number of employees.	Per cent of employees whose days off are—				
				None.	1 a week or 4 a month, with pay.	1 a week, without pay.	1 every 2 weeks or 2 a month or $\frac{1}{2}$ a week, with pay.	Occasional, with pay.					None.	1 a week or 4 a month, with pay.	1 a week, without pay.	1 every 2 weeks or 2 a month or $\frac{1}{2}$ a week, with pay.	Occasional, with pay.
Atlanta, Ga....	M.	6	433	97	.....	.....	3	.....	6	2	151	88	.....	3	1	8	
	F.	6	361	97	.....	1	3	.....	5	2	103	43	.....	31	11	16	
Boston, Mass....	M.	8	854	24	39	27	8	1	2	8	280	1	.....	99	.....	.....	
	F.	8	604	25	52	5	18	.....	2	8	504	1	.....	99	.....	.....	
Buffalo, N. Y..	F.	7	442	38	52	1	9	.....	6	6	208	24	1	71	4	.....	
	M.	7	393	56	30	6	5	3	6	6	266	.....	2	98	.....	.....	
Chicago, Ill.....	M.	.....	.....	.....	.....	.....	.....	.....	9	7	564	43	18	32	6	1	
	F.	.....	.....	.....	.....	.....	.....	.....	9	7	644	23	5	66	6	1	
Cincinnati, Ohio.	M.	5	381	59	14	(1)	27	.....	6	5	171	65	.....	33	2	.....	
	F.	5	274	79	1	12	7	.....	6	5	263	1	.....	98	1	.....	
Cleveland, Ohio.	M.	6	654	42	12	46	(1)	.....	3	5	209	16	1	79	4	.....	
	F.	6	531	46	11	18	25	.....	2	5	70	17	1	81	.....	.....	

<sup>1</sup> Less than one-half of 1 per cent.

TABLE 2.—PER CENT OF HOTEL AND RESTAURANT EMPLOYEES ENTITLED TO EACH SPECIFIED NUMBER OF DAYS OFF DUTY, BY CITY—Concluded.

City.	Sex.	Hotels.							Restaurants.								
		Number of establishments.	Number of employees.	Per cent of employees whose days off are—					Number of establishments—	Number of employees.	Per cent of employees whose days off are—						
				None.	1 a week or a 4 month, with pay.	1 a week, without pay.	1 every 2 weeks or 2 a month or $\frac{1}{2}$ a week, with pay.	Occasional, with pay.			None.	1 a week or 4 a month, with pay.	1 a week, without pay.	1 every 2 weeks or 2 a month or $\frac{1}{2}$ a week, with pay.	Occasional, with pay.		
Denver, Colo...	M.	7	371	76	20	1	3	8	197	51	4	45					
	F.	7	337	87	(1)	5	8	8	168	88	5	8					
Detroit, Mich...	M.	5	767	28	56	15	1	7	2	152	36	27	26	11			
	F.	5	535	68	17	(1)	14	7	2	258	53	13	22	8	4		
Indianapolis, Ind.	M.	7	283	88	5	7	(1)	8	101	100							
	F.	7	290	87	2	9	2	8	91	100							
Kansas City, Mo.	M.	5	728	42	16	41	1	3	5	137	47	1	50	1	1		
	F.	5	273	85	6	10		2	5	188	31	10	59				
Los Angeles, Calif.	M.	7	725	78	16	1	2	9	1	360	42	3	36	18			
	F.	7	387	78	10	7	4	8	1	319	21		71	7			
Louisville, Ky.	M.	6	368	92	5	3	(1)	8	1	137	88		9	3			
	F.	6	199	92	5	4		8	1	114	53		46	1			
Memphis, Tenn.	M.	3	174	100				5	1	75	91		7	1	1		
	F.	3	146	98	2			5	1	71	66		34				
Milwaukee, Wis.	M.	5	275	56	8	36		7	1	104	38	34	18	10			
	F.	5	260	83	1	15	1	7	1	166	78		20	2			
Minneapolis, Minn.	M.	6	275	69	17	2	11	7	3	134	41	10	46	2			
	F.	6	256	63	16	4	12	7	3	178	35	3	56	5			
New Orleans, La.	M.	5	810	98	1	1		6		213	92	(1)	7				
	F.	5	343	99	1			5		133	71		12	17			
New York City, N. Y.	M.	12	3,543	13	66	3	14	19	5	1,508	13	21	60	6			
	F.	12	1,691	43	42		12	14	5	302	7	9	83	1			
Omaha, Nebr...	M.	6	329	81	14		5	7	1	126	79		19	2			
	F.	6	222	94	1	4	1	7	1	118	58		35	8			
Philadelphia, Pa.	M.	6	894	10	66	4	20	2	7	400	2	39	58	1			
	F.	6	400	1	94		5	2	7	251		12	88				
Pittsburgh, Pa.	M.	6	729	27	69		3	2	7	274	13	29	57	1			
	F.	6	503	2	97			2	8	360		10	90				
Portland, Oreg.	M.	5	262	53	38	(1)	9	8		204	38	16	45	1			
	F.	5	244	35	32		31	8		205	11	6	83				
St. Louis, Mo...	M.	6	599	48	35	12	2	11	2	224	31	7	58	4	(1)		
	F.	6	494	47	33	5	15	11	2	153	9		88	3			
Salt Lake City, Utah.	M.	4	200	90	8		2	7		150	62		32	6			
	F.	4	181	99			1	3		43	30		28	42			
San Francisco, Calif.	M.	8	1,338	20	42	19	10	11	1	689	13	22	64	1	(1)		
	F.	8	498	53	41	1	1	5	1	156	5	3	92				
Seattle, Wash...	M.	6	288	57	30	2	7	10		209	26	10	64	(1)			
	F.	6	222	70	10	3	17	8		186	31	1	69				
Washington, D. C.	M.	6	692	54	44		3	7	2	184	58	3	39	1			
	F.	6	435	65	31		4	7	1	200	12	1	87	1			
Total.....	(M.)	.....	16414	43	38	6	11	.....	.....	7,161	33	14	49	4	(1)		
	(F.)	.....	10079	58	29	3	10	.....	.....	5,510	24	4	68	3	1		
Grand total....	.....	.....	153	26493	48	35	5	10	2	185	73	12671	29	10	57	4	(1)

<sup>1</sup> Less than one-half of 1 per cent.

Striking differences are found in the proportion of employees in the several cities who are allowed a day of rest in seven. The six-day working week is more prevalent in large cities than in smaller ones. This is shown by the fact that the percentage in a good deal more than

half the cities is below the average for all cities. For female hotel employees this is the condition in 18 out of 25 cities, and for female restaurant employees in 15 out of 26 cities; while for male employees the corresponding figures are 16 out of 25 and 17 out of 26. Indianapolis is the only city included in the survey in which no restaurant employee has a day of rest; but the same condition was found among male hotel employees in Atlanta and Memphis, and among females in Salt Lake City. That it is possible to arrange schedules of work for employees which will allow each one a day of rest a week is shown by the experience of San Francisco restaurants. Eleven of the 12 restaurants scheduled in that city are open on Sunday, and yet 86 per cent of all the male restaurant employees and 95 per cent of the females listed in that city receive a day off per week.

#### Full-Time Weekly Hours.

**C**ONTINUOUS operation or long daily hours of operation produce great irregularity in the arrangement of daily hours of work for men and women in the several occupations. For this reason the actual hours at which employees begin and end their work each day were secured from practically every establishment included in the survey. These scheduled daily hours do not, however, afford a basis for computing with absolute accuracy the hours which each employee actually worked during the pay period studied, because at slack times the head of a department may dismiss him early and at rush times may require him to remain after regular hours to complete his work. Overtime thus worked is frequently not reckoned as overtime and is not recorded. The small amount of over time recorded for hotels and restaurants has been disregarded, therefore, in the discussion of the hours worked by employees in this industry.

Space does not permit discussion of the full-time weekly hours or daily hours of work of employees in all occupations. The hours worked by men and women in the occupations numerically the largest in the several departments of hotels and restaurants, however, are similar to the working hours of other employees in the same department, and indicative of conditions throughout the industry. The occupations of cook, dishwasher, and waiter in both hotels and restaurants, and of bellman and maid in hotels, have therefore been selected for discussion as the most common and most typical occupations in the industry. In order to present a concise picture of the weekly hours of work of men and women in these selected occupations the following summary table, showing for each occupation, except that of bellboys, the number of employees working each specified number of hours a week, has been prepared. Bellboys are not included in this table because practically all of them work under one general arrangement of daily hours.



TABLE 3.—NUMBER OF EMPLOYEES IN SELECTED OCCUPATIONS IN HOTELS AND RESTAURANTS WHOSE FULL-TIME WEEKLY HOURS WERE AS SPECIFIED.

Occupation.	Num-ber of estab-lish-ments	Num-ber of em-ploy-ees.	Employees whose full-time hours per week were—																					
			Un-der 36	33	Over and under 42	42	Over and under 48	48	Over and under 54	54	Over and under 56	56	Over and under 60	60	Over and under 63	63	Over and under 70	70	Over and under 77	77	Over and under 84	84	Over 84	
<i>Hotels.</i>																								
Cooks, male <sup>1</sup> .....	59	831	4	4	9	35	48	270	124	121	46	15	26	24	10	20	31	15	2	7	7	7	22	2
Cooks, male <sup>2</sup> .....	100	900	2	1	.....	7	4	48	34	141	8	20	55	232	3	72	85	67	49	16	27	22	3	2
Cooks, female <sup>1</sup> .....	19	37	1	.....	2	6	11	3	10	5	.....	6	4	3	.....	8	5	.....	.....	.....	.....	.....	.....	.....
Cooks, female <sup>2</sup> .....	36	59	1	.....	2	20	43	34	153	74	60	37	254	1	76	179	63	3	7	1	1	3	.....	
Dishwashers, male <sup>1</sup> .....	71	971	8	1	5	2	2	25	13	74	1	25	58	38	58	108	61	62	39	22	29	48	2	
Dishwashers, male <sup>2</sup> .....	58	667	.....	.....	.....	25	88	84	105	8	16	56	113	.....	13	12	5	1	.....	.....	.....	.....	.....	
Dishwashers, female <sup>1</sup> .....	57	549	1	1	21	8	4	33	28	111	4	35	31	3	.....	55	9	9	4	1	.....	2	.....	
Dishwashers, female <sup>2</sup> .....	50	348	.....	.....	11	74	740	319	1,575	97	133	193	181	65	114	2	39	5	.....	.....	.....	.....	.....	
Maids <sup>1</sup> .....	131	3,670	7	25	101	3	2	33	88	50	18	43	90	.....	9	13	51	.....	.....	2	.....	.....	.....	
Maids <sup>2</sup> .....	30	426	.....	.....	3	2	117	72	241	160	128	52	429	93	59	31	163	56	43	.....	.....	.....	.....	
Waiters <sup>1</sup> .....	58	1,805	65	12	48	36	33	118	254	200	100	20	238	219	152	134	246	45	141	18	81	31	.....	
Waiters <sup>2</sup> .....	69	2,193	80	25	16	42	33	54	17	.....	27	29	11	1	2	1	.....	14	.....	.....	.....	.....	.....	
Waitresses <sup>1</sup> .....	38	461	94	5	38	71	97	40	99	102	39	61	2	.....	6	8	2	.....	.....	1	.....	.....	.....	
Waitresses <sup>2</sup> .....	40	505	14	.....	13	30	77	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
<i>Restaurants.</i>																								
Cooks, male <sup>1</sup> .....	107	644	6	5	4	21	39	54	76	96	16	59	59	60	5	58	49	7	13	25	43	1	.....	
Cooks, male <sup>2</sup> .....	156	756	2	4	.....	6	6	58	21	84	4	4	4	.....	5	41	91	36	70	22	24	24	.....	
Cooks, female <sup>1</sup> .....	43	137	3	.....	2	6	28	36	27	19	.....	9	10	3	.....	2	1	.....	.....	.....	.....	.....	.....	
Cooks, female <sup>2</sup> .....	43	110	4	2	3	4	2	22	11	13	6	9	53	26	14	33	49	15	12	15	1	.....		
Dishwashers, male <sup>1</sup> .....	102	461	14	.....	15	7	5	28	56	56	11	39	10	21	.....	19	9	23	23	7	14	35	.....	
Dishwashers, male <sup>2</sup> .....	77	240	4	.....	.....	2	2	18	7	33	1	8	10	.....	.....	1	6	4	.....	.....	.....	.....	.....	
Dishwashers, female <sup>1</sup> .....	85	487	59	7	17	37	71	83	81	72	3	30	16	.....	.....	17	10	9	6	.....	10	1	.....	
Dishwashers, female <sup>2</sup> .....	66	277	11	11	5	11	5	32	15	83	.....	25	12	12	2	17	10	9	.....	.....	.....	.....	.....	
Waiters <sup>1</sup> .....	73	1,236	180	15	33	115	48	38	214	84	27	49	85	120	19	83	58	18	37	13	.....	.....	.....	
Waiters <sup>2</sup> .....	76	791	28	21	8	16	19	103	42	84	79	2	66	78	14	18	56	50	46	30	6	22	.....	
Waitresses <sup>1</sup> .....	74	1,316	310	24	87	64	272	260	159	68	8	39	21	3	.....	.....	1	.....	.....	.....	.....	.....	.....	
Waitresses <sup>2</sup> .....	52	647	91	29	17	42	76	106	31	131	1	50	5	12	1	41	3	6	3	.....	2	.....	.....	

<sup>1</sup> Time off duty for meals is specified and is not included in full-time weekly hours.

<sup>2</sup> Time off duty for meals is not specified and is included in full-time weekly hours.

In Table 3 no distinction is made between those who work six days a week and those who work seven days a week. Naturally, however, the full-time weekly hours of employees working a seven-day week would be longer than those of employees working a six-day week. Employees working less than 36 hours a week are usually part-time workers. Relief employees, and employees who have a half day off a week but whose exact hours off are not reported, are necessarily excluded. In the majority of establishments employees who are entitled to meals eat at least one meal a day during working hours. In many establishments, especially hotels, employees have no regular time allowed in which to eat their meals, but take as much or as little time as they need or the pressure of business permits. In other establishments from 20 minutes to an hour is allowed for a meal, with never more than an hour and a half total meal allowance during working hours. In Table 3 two groups of employees are presented separately under each occupation term. In the first line the data are given for employees who receive regular time off for meals during working hours; in the second line the same information is given for those who have no specified time off for meals during working hours. Because of this arrangement a comparison of the weekly hours worked by the two groups can readily be made. In establishments where no regular time is allowed for meals the full hours on duty have necessarily been used as the regular working day, whereas in establishments where regular time is allowed for meals, such time has been deducted from the total working hours of each employee to obtain his actual working hours. This deduction of time allowed for meals, however, does not account entirely for the shorter hours worked by those in the first group under each occupation. Employees in establishments allowing regular time for meals work on the average fewer hours per week than employees in establishments which do not regulate the time for meals. In other words, an establishment which arranges regular meal periods also usually regulates more carefully hours of work and general working conditions.

The groups having regular time for meals afford the best basis of comparison of weekly hours worked by employees in the several occupations. The most striking facts brought out by the table are the extreme differences in the length of the working week of employees in the same occupation, and the long weekly hours worked by large numbers of men and by some women. Extreme variation in the length of the working week is found even among establishments in the same city, indicating an extraordinary lack of standardization in the working week. Full-time weekly hours of men are longer than those of women in all occupations. Slightly more than half the male hotel employees work between 49 and 60 hours a week, and about the same number of the male restaurant employees work between 49 and 63

hours a week; while approximately half the female hotel employees work between 48 and 56 hours a week, and the same proportion of the female restaurant employees between 42 and 54 hours a week. Twenty-two per cent of the men in all hotel and restaurant occupations work more than 60 hours a week, while 24 per cent of the women in hotel occupations and only 16 per cent of the women in restaurant occupations work 54 hours or over a week. The greatest difference in length of working week for men and women in the same occupation is found in the unskilled occupations. As the men in the skilled occupations work shorter hours than those in the unskilled occupations, their hours approximate more closely to the hours of women in these occupations. The shorter hours of the women are of course due to a certain extent to the several State laws regulating hours of women's work. A glance at the table reveals, however, that 11 women in hotels and 2 women in restaurants, including those to whom time off duty for meals is not specified, are working 84 hours or over a week. Of the men, 112 in hotels and 98 in restaurants, including both groups of employees, are working 84 hours or over a week. Eighty-four hours a week means 12 hours a day for seven days, a condition sometimes rendered more unbearable because the 12 hours' work is distributed over a stretch of 15 hours or more. Employees in the unskilled occupations suffer most frequently from hours as long as these. But even in the skilled occupations the working time is longer than in many industries and longer than is generally regarded as desirable. Of the male employees whose full-time weekly hours as shown in Table 3 do not include time off for meals, cooks in hotels and waiters in restaurants constitute the only groups with 25 per cent of their members working as little as 48 hours per week, or 50 per cent working less than 54 hours a week. Among the female employees whose working week does not include time for meals the percentage whose hours per week do not exceed 48 varies from 34 for maids to 78 for waitresses in hotels and from 55 for cooks to 75 for waitresses in restaurants.

#### Daily Hours of Work.

THE arrangement of the daily hours of work of hotel and restaurant employees is influenced largely by the long hours of operation of most of the departments of a hotel or restaurant, and in the case of kitchen and dining-room employees by the occurrence of peaks of business in the dining room at meal times. The unequal number of employees needed at different hours has induced a prevalence of split shifts and shifts which vary from day to day. In considering the daily hours of hotel and restaurant employees it should be borne in mind that although some may not be busy every minute during their working hours, they must nevertheless be at their posts of duty ready to respond to any call.



## Waiters and Waitresses.

OF ALL hotel and restaurant employees waiters and waitresses have the most irregular hours and the most diversified arrangement of shifts. For hotels the records on which this report is based cover 4,541 waiters and 1,162 waitresses. Only one-third of these waiters and one-half of the waitresses work uniform hours day after day, the remainder work on shifts which alternate from day to day or week to week, or rotate through several days or weeks. Of those working uniform hours from day to day a minority only, consisting of one-fifth of the waiters and less than one-half of the waitresses, work straight, unbroken shifts; of these many are part-time employees who are hired for a single meal per day. The remaining four-fifths of the hotel waiters and one-half of the waitresses in the group that work uniform hours from day to day have split shifts. For employees on split shifts the time limits within which the day's work falls are only less important than the number of hours per day worked. For the waiters in this group the common arrangement of the working day is between 8 and 11 hours of work falling within between 13 and 15 consecutive hours of the day. There are 29 waiters in hotels, however, whose broken shifts extend over more than 16 hours per day; four work 13 hours a day within 18 hours. As would be expected the hours of women are less extreme than those of men. Of those having uniform split shifts from day to day the largest group in hotels have 7 and under 8 hours of work falling within between 12 and 14 hours.

In the second division of the waiters and waitresses mentioned above, those who work alternating or rotating shifts, the most common arrangement is one in which the hours alternate from day to day. Such alternating shifts are worked by 1,633 hotel waiters. The majority of these waiters work a straight shift one day and a split shift on the following day; for 35 per cent of them the split shift consists of an average of 11 hours distributed over 18 hours or more a day. Of the waitresses of this division 148 work alternating shifts. More than half of them have split shifts every day, with a different arrangement of hours on the two shifts. The prevalent working day among them is one of 9 hours or less over a stretch of less than 13 hours. Five hotel waitresses were found, however, whose working hours every day extended over a stretch of 18 hours.

In restaurants 2,222 waiters and 2,598 waitresses were listed in the survey. Of this number approximately 50 per cent of both waiters and waitresses work uniform hours from day to day, and 50 per cent work alternating or rotating shifts. Of the former group one-half of the waiters and two-thirds of the waitresses have straight, unbroken shifts. As in the case of hotel employees many of these are

part-time workers. The other 50 per cent of restaurant waiters and waitresses with uniform hours have split shifts. Their hours are similar to those of the corresponding groups in hotels. In the case of 10 waiters, however, the working hours are spread over more than 16 hours per day. The prevailing hours for women in this group are 7 and under 10 within 12 and under 14 hours per day. No waitress in this group has hours of work spread over more than 16 hours per day.

Of the group of waiters and waitresses in restaurants working alternating or rotating shifts 437 waiters and 123 waitresses had shifts alternating from day to day. The hours are shorter, and the spread of hours less, in restaurants than in hotels. No restaurant waiter works over as long a stretch as 18 hours a day. As in hotels more than half the restaurant waitresses with alternating shifts have split shifts every day. The prevalent working day is one of 9 hours or less included within 13 hours or less.

There are other large groups of waiters and waitresses in hotels and considerable numbers in restaurants who work on shifts which change every day for a period of days or every week for a period of weeks. Examples of such shifts worked by waiters in hotels are shown in the chart on page 102.

In all the charts accompanying this article the number of employees represents the number on the pay roll during the period studied and not necessarily the number of full-time positions in the establishments. The first establishment shown on Chart A employs 39 waiters and arranges its hours to rotate weekly, each waiter working a six-day week on each shift. In the fourth establishment, which employs 16 men, shifts rotate daily through a seven-day week. No man necessarily works three consecutive days on the shift starting at noon and lasting until 1 a. m., but during each week he works three days on this shift. Although very long shifts are broken by an hour or less allowed for a meal, this break could not be indicated on the chart as the exact hours at which meals are served were not ascertained.

It will be noticed that all the waiters represented on this chart work on some days over stretches of at least 13 hours and that the work of several of them extends over much longer periods. In the next to the last establishment shown a waiter never works a straight shift. The fourth establishment, with 16 men working seven days a week, has the most severe arrangement of hours. Although these men are off at 2 in the afternoon on two days out of seven, the other five days they must work until 1 a. m. In a hotel like this with considerable after-theater business a waiter must often stay on popular nights until 2 o'clock or later to complete the service of guests. No matter how this schedule may be arranged there is one morning when the waiter has to be on duty no later than 8 o'clock following a night when he has been on duty until 1 o'clock. In other words, there are two

working days every week between which the waiter has no more than seven hours of rest at night. These men work  $77\frac{1}{2}$  hours in a seven-day week.

CHART A.—ROTATING SHIFTS FOR WAITERS IN EIGHT HOTELS.

Number of Employees on Payroll	Days Worked per Week	Days in Period of Rotation	Days Worked on Each Shift																								
				A.M.												P.M.											
				6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
39	'6	18	6 6 6																								
11	7	3	2 1																								
17	'6	3	1 1																								
16	7	7	1 1 3																								
18	'6	3	1 1																								
56	'6	4	1 1 1																								
18	'6	6	2 3 1																								
9	'6	3	1 1																								

<sup>1</sup> Entitled to 1 day off each week.

### Representative Arrangement of Shifts.

THE hours of waitresses in hotels are broken in a manner similar to those of the men, but their hours on duty are usually fewer, with longer rest periods at night. The following arrangement of hours found in a small hotel employing six waitresses, in shifts rotating as indicated, seems to involve the maximum of inconvenience for the employees. Each employee works—

Two days: 8 to 10 a. m., 12 m. to 2.30 p. m., 6 to 9 p. m., 9.30 to 12 p. m.

Two days: 12 m. to 5 p. m., 5.30 to 6 p. m.

One day: 8 to 10 a. m., 12 m. to 2.30 p. m., 9.30 to 12 p. m.

One day: 6 to 6.30 a. m., 7 to 11 a. m., 6 to 9 p. m., 10 to 12 p. m.



That it is possible to arrange the hours of waiters, even in large hotels, with more regard for the convenience and advantage of the employees, is shown by the successful experience of a large Pacific coast hotel employing about 150 waiters. The men work in shifts, changing weekly from one shift to another. For the week covered by the survey the schedule was arranged as follows:

- 7 worked from 10.30 a. m. to 2 p. m. and from 2.45 to 8.30 p. m.
- 7 worked from 11.45 a. m. to 2.15 p. m. and from 6 p. m. to 1 a. m.
- 10 worked from 12 m. to 2.30 p. m. and from 6 p. m. to 12.30 a. m.
- 2 worked from 11.30 a. m. to 8.30 p. m.
- 7 worked from 11.30 a. m. to 2 p. m. and from 2.45 to 6 p. m.
- 7 worked from 12 m. to 2 p. m. and from 5.45 to 9.45 p. m.
- 7 worked from 11.45 a. m. to 2.45 p. m. and from 5.30 to 6.30 p. m.

The last three shifts are known as three-quarter shifts; while on them the men receive three-fourths of their regular weekly wage.

The arrangement of hours, both for waiters and for waitresses, is usually better in restaurants than it is in hotels. Several instances of well-arranged systems were found. Thus a restaurant in the eastern part of the country having the heaviest part of its business at night, and employing 30 waiters, operated under the following schedule:

- 4 worked daily from 12 m. to 8 p. m.
- 1 worked daily from 7 a. m. to 3 p. m.
- 25 worked on alternate days {
  - from 12 m. to 8 p. m. on one.
  - from 5.30 p. m. to 1 a. m. on the other.

The shortening of the late shift makes allowance for the frequent obligation of the waiters to remain later than 1 o'clock to complete the service of guests.

That it is possible to make satisfactory arrangements of hours of waitresses in restaurants may be further illustrated by the following examples. The first restaurant is in the East and employs 115 full-time waitresses; the second is in the West and has 18 waitresses on the pay roll. The arrangement of hours is as follows:

Restaurant A:

- 5 work from 6 a. m. to 3 p. m.
- 1 works from 7 a. m. to 3 p. m.
- 1 works from 8 a. m. to 5 p. m.
- 2 work alternating days from 7 a. m. to 3 p. m. and from 10.30 a. m. to 7.30 p. m.
- 28 work from 10.30 a. m. to 7.30 p. m.
- 42 work from 11 a. m. to 8 p. m.
- 7 work from 12 m. to 3 p. m. and from 5 to 8 p. m.
- 4 work from 11.30 a. m. to 3 p. m.
- 22 work from 12 m. to 3 p. m.
- 3 work from 5 p. m. to 8 p. m.

## Restaurant B:

- 4 work from 6 a. m. to 2 p. m.
- 2 work from 7 a. m. to 3 p. m.
- 2 work from 8 a. m. to 2 p. m. and from 6 to 8 p. m.
- 1 works from 8 a. m. to 1.30 p. m. and from 5 to 7.30 p. m.
- 4 work from 12 m. to 8 p. m.
- 4 work from 4 p. m. to 12 p. m.
- 1 works from 5 p. m. to 1 a. m.

## Cooks.

**I**N CONTRAST to the experience of waiters a large proportion of cooks work the same shifts every day. Of this group, consisting of 1,424 male hotel cooks, 1,195 male restaurant cooks, 73 female hotel cooks and 214 female restaurant cooks, about half work unbroken shifts. The remainder work split shifts, running approximately from 7 a. m. to 2 p. m. and 5 to 8 p. m. Among the men who work straight unbroken shifts, however, there is the widest variation in working conditions. Because a hotel or restaurant worker has a straight shift he does not necessarily have short hours. In Chart B are represented the hours of cooks in three restaurants having unbroken long shifts and in four having similar short shifts. The three restaurants in the first group are located in the South, Middle West, and East, respectively, while of the four in the second group two are in eastern cities and two on the Pacific coast. (See Chart B.)

## Housekeeping and Service Departments.

**A**LARGE majority of employees in the housekeeping and service departments work seven days a week. Numerically the occupation of maid is the largest in the housekeeping department and the largest female occupation in the industry. Of approximately 4,000 maids included in the survey, 6 per cent work over 60 hours a week and 62 per cent work from 48 to 56 hours per week. Daily hours of work for maids are usually included between the hours of 6 a. m. and midnight. Regular work is all performed before 6 p. m., but evening maids are required to make up rooms vacated late in the day. About half the 4,000 maids are employed in hotels in which regular day maids work straight shifts broken only for lunch, and where the necessary night work is done by different groups. In these hotels the day shifts work from 7.30 or 8 a. m. to 4 or 5 p. m. and the night shifts from 4 or 5 p. m. to 11 p. m. or midnight. From one-half to one hour off is allowed for lunch or supper. The Sunday shift for about 900 of this group is shorter than the week-day shift by approximately two hours. The daily and weekly hours of all this group of maids are comparatively short, and are much easier than those of the other half of the maids included in the survey.

The 2,000 maids constituting this other half work straight, alternating, or rotating shifts, so arranged that each maid takes her turn at night work. About 700 of them work straight day shifts with the addition of a night watch every fifth to ninth day. This

CHART B.—STRAIGHT SHIFTS FOR MALE COOKS IN SEVEN RESTAURANTS.

Number of Employees on Payroll	Days Worked per Week	Number of Employees on Each Shift																											
			AM.												PM												AM		
			4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3			
4	7	1 1 1																											
5	7	2 2																											
22	<sup>2</sup> 6	15 3 1 1 1																											
6	<sup>3</sup> 6	2 2 2																											
9	<sup>3</sup> 6	1 1 1 1 2 2																											
5	<sup>3</sup> 6	1 1 1 2																											
20	<sup>3</sup> 6	1 8 2 3 6																											

<sup>1</sup> Straight night shift.

<sup>2</sup> Entitled to 1 day off each week.

<sup>3</sup> Closed on Sunday.

long day may extend straight through from 8 in the morning to 11 at night with breaks only for meals, or it may extend approximately from 8 a. m. to 3 p. m. and from 6 to 11 p. m. Occasionally the night shift is on duty only until 7 or 8 o'clock. In many instances maids in this group have comparatively short shifts on



Sunday. Chart C gives ten examples of rotating shifts in as many hotels in different cities.

Maids who work over a long, unbroken stretch of hours are allowed an hour or less for one meal. As the exact hours at which meals are eaten were not reported, it was impossible to show breaks for meals on the chart. The frequency of night work varies; it is required 8 nights out of 13 in the first establishment, 2 nights out of 4 in the third, and only 1 night a week in the 2 establishments employing 82 and 79 maids, respectively. The women working on the extremely broken shifts in the first establishment are lodged in the hotel and can therefore retire to their own rooms during the short periods of time elapsing between shifts. On the other hand, the fact that they are lodged in the house enables the management to call on them for extra work when any employees are absent from duty or when the hotel is unusually busy.

The type of shift worked by maids is frequently the same for practically all hotels in the same city, although the actual hours on duty may vary considerably from establishment to establishment. In States in which there are no State laws regulating the hours of work for women, weekly hours for maids vary extremely in different hotels, and are apparently regulated in each case entirely by the management.

Practically all the 1,768 bellboys included in the survey work alternating long and short days of strikingly similar length throughout the country. A large majority of them work approximately 6 hours, from 12 m. to 6 p. m. on one day, and on alternate days have long hours divided between two shifts. The largest number work on this long day 12 and under 13 hours, completed in 18 and under 19 hours. Another large group works on the long day 11 and under 12 hours, distributed over 17 and under 18 hours, and a third group works 10 and under 11 hours, distributed over 16 and under 17 hours. These long day shifts extend approximately from 6 or 7 in the morning to noon and from 6 at night until 11 or midnight. In some establishments the hours on the long day vary in rotation. For example, in one hotel all bellboys begin their evening shift at 6 p. m. Each man remains on duty one night until 11 o'clock, the second night until 11.30, the third night until 12, and the fourth night until 12.30. The fifth night he leaves again at 11 o'clock.

Only 49 bellboys were found working unbroken shifts every day. Twenty-eight of these were in one establishment with shifts alternating weekly, the daily hours being from 6 a. m. to 3 p. m. during one week and from 3 p. m. to 1 a. m. during the next week. The night force of bellboys is usually composed of one or two men who



work from 11 p. m. to 7 a. m. and act as elevator men as well as bellboys. The usual full-time weekly hours of bellboys are between 56 and 63, spread over a 7-day week.

Of the 56 women listed as bellboys 37 work alternate long and short shifts similar to those of the men, but usually with somewhat shorter hours on the long day. All but four of the women work a six-day week. Their weekly hours are, therefore, much less than those of the men, 31 of them working only 42 hours a week. Their work is apparently specialized, and not exactly like that of the regular bellboys. It is evident, therefore, that women have not replaced men to any appreciable extent in this occupation.

#### Conclusion.

THE outstanding features of employment in the hotel and restaurant industry as revealed by this study of hours are the long hours of work, especially among men, as compared with most manufacturing industries; the numerous instances of split shifts spread over excessively long periods; and the extreme variation in the length of the week for employees in the same occupation, not only in different cities but also among different establishments in the same city, showing the great lack of standardization in the industry. Since some of the establishments scheduled, especially those in the Pacific coast and the eastern cities, have been able to inaugurate a six-day week with shorter daily hours and better wages, it seems reasonable to believe that better working conditions might be introduced quite generally in the industry.



## Practice Regarding the Payment of Punitive Overtime Rates.

By LEIFUR MAGNUSSON.

### Establishment of Overtime Rates by Legislation.

THE policies of the war labor administration undoubtedly caused considerable extension of the practice of paying punitive overtime rates. All war labor agencies, either directly or by implication, accepted trade-union practice in that respect. The War and the Navy Departments took a definite stand in the matter and ordered the payment of an extra overtime rate on all their construction work. General Order No. 13, November 15, 1917, issued originally by the Chief of Ordnance and repeated by the Quartermaster General, explained the theory of paying punitive overtime rates in these terms:

The theory under which we pay "time and a half" for overtime is a tacit recognition that it is usually unnecessary and always undesirable to have overtime. The excess payment is a penalty and intended to act as a deterrent. There is no industrial abuse which needs closer watching in time of war.

The law of the Federal Government limiting the hours of work on all public contracts to eight hours per day permits overtime only in cases of emergency. During the war the eight-hour day on Government shipbuilding, munition, and construction contracts was suspended because of the war emergency. The Executive order of March 22, 1917, one of several similar orders which suspended the eight-hour day on different kinds of Government work, provided "that the wages of persons employed upon such contracts shall be computed on a basic day rate of eight hours' work, with overtime rates to be paid for at not less than time and one-half for all hours worked in excess of eight hours."

Likewise during the war the Bureau of Engraving and Printing began working overtime and paying an extra rate of compensation for such work.

Previous to the exigencies in Government work created by the war the act of August 24, 1912, provided that beginning March 4, 1913, letter carriers in the city delivery service and clerks in first and second class post offices who in case of emergency were employed over eight hours per day should be compensated at the rate of time and a half. Section 5 of chapter 389 of the act reads as follows:

In cases of emergency, or if the needs of the service require, letter carriers in the city delivery service and clerks in first and second class post offices can be required to work in excess of eight hours a day, and for such additional services they shall be paid extra in proportion to their salaries as fixed by law.

State and territorial legislation in the United States has also dealt with the problem of extra compensation for overtime. Under the Administrative Code, 1917 (ch. 42, sec. 1656), the Bureau of Printing of the Philippine Islands is required to compensate overtime work at a rate of 20 per cent in excess of normal rates on regular workdays and of 100 per cent on holidays.

An act of 1917 of Porto Rico (Act No. 43, sec. 1) requires that the chief of the bureau of supplies, printing, and transportation shall pay employees of that bureau who are paid by the hour for all work on holidays and outside of regular office hours at the rate of 50 per cent above the regular rate.

Oregon is the only State in the Union which requires extra compensation for overtime where labor is employed by the State, county, school district, municipality, or other governmental division. Chapter 98 of the General Laws of Oregon, 1917, specifies that no person shall be required or permitted to labor more than 8 hours in any one day, or 48 hours in any one week, except in cases of necessity, emergency, or where public policy absolutely requires it, in which event the person or persons so employed shall receive double pay for such overtime; and no emergency, necessity, or public policy shall be presumed to exist when other labor of like skill and efficiency which has not been employed full time is available. This act does not apply to State institutions and departments. A law similar to the above is found in the legislation of the State of Washington (Codes and Statutes, sec. 6573), which is applicable on all public contracts.

The general 10-hour law of Oregon (Section 2, chapter 102, General Laws of Oregon, 1913), which fixes a 10-hour day in all manufacturing industries, directs that if, in an emergency, overtime is worked, the rate of payment therefor shall be 150 per cent of the regular rate.

The general practice under minimum-wage legislation in the States is to discourage and limit overtime as much as possible, and to allow it only where an emergency makes it necessary. In such cases provision is made for the payment of compensation for the overtime in the orders of the commissions or boards which are charged with the enforcement of the minimum-wage laws. This compensation is usually somewhat in excess of the normal rate of compensation. The Industrial Welfare Commission of Kansas has applied a rate of time and one-half for overtime work of women subject to its orders, while that of California fixes a rate of time and one-fourth.

Cognizance is taken of overtime in foreign labor legislation either by law or administrative order. In Austria, Ecuador, Finland, France, Poland, Portugal and Jago-Slavia punitive overtime rates are to be paid to persons coming within the scope of the general eight-

hour laws. Other countries having eight-hour laws require only the payment of pro rata overtime.<sup>1</sup> In Great Britain a bill before Parliament in 1919 specified that not less than time and one-quarter should be paid for overtime work.

The draft convention on the eight-hour day, recommended by the recent International Labor Conference at Washington which was convened under the League of Nations and consisted of representatives of Governments, employers, and workers from 40 nations, provided for the general introduction of an eight-hour day and suggested the placing of a limit upon the amount of overtime work and the payment of time and a quarter for such overtime.

In the voluntary agreements between employers and workers and in the binding awards of the arbitration courts or wages boards of Australia and New Zealand, all work in excess of 8 hours a day or 48 hours a week must be paid for at a higher rate of remuneration.

#### Overtime Rulings of the National War Labor Board.<sup>2</sup>

THE National War Labor Board did not follow an invariable rule in fixing the payment of overtime work, yet its decisions are fairly uniform. In 68 cases it decided that time and a half should be paid for all overtime and in 67 cases it directed the payment of double time on Sundays and holidays. In one instance, the board awarded double time for work on Saturday afternoons and for some work late at night by those employees who were not ordinarily night-shift men. In the Sloss-Sheffield Steel & Iron Co. case the joint chairmen as arbitrators awarded time and one-quarter for work between 8 and 10 hours and time and one-half for work over 10 hours, but in another case decided by them on the same day—that of the Corn Products Refining Co.—the overtime rate was fixed at time and one-half for work beyond 8 hours and double time for that beyond 12 hours.

In the rulings of the board the special nature of the industry frequently determined the question of the payment of overtime. Under a system of shift work where continuous operation is required, Sunday work was not considered as overtime. In the newsprint paper award the board decided that whenever tour workers were required to work overtime for more than two weeks to fill a vacancy, overtime compensation should be paid at the rate of double time; but in case the employer was unable to fill such a vacancy, he could apply to the union, and if the union was unable to furnish the required

<sup>1</sup> For an analysis of the eight-hour laws in the foreign countries see pp. 184 to 198 of this number of the REVIEW.

<sup>2</sup> Analysis of awards of the National War Labor Board, by Robert P. Reeder. Appendix No. 2, Report of the Secretary of the National War Labor Board to the Secretary of Labor for the 12 months ending May 31, 1919, pp. 80 to 84, Washington, 1920.



men the employer could not be required to pay more than time and one-half for overtime work. Work at the change of shifts was not considered as overtime work.

Railroad work was treated specially in regard to payment of overtime and train crews were given nine-hour days without higher rate for overtime although the basic day was eight hours. The ruling of the board in this matter was as follows:

The working hours for train crews shall be 9 hours per day. Should their work be completed at any time between the last half-hour point and the full 9 hours' working time, the crew shall have the privilege of going home. Should the crew be required to remain 30 minutes or less beyond the end of their ninth working hour to complete the work, no extra time shall be granted, but in case more than 30 minutes in excess of 9 hours are required to do the work overtime shall be granted at the flat hour basis. The superintendent, or his representative, shall be the judge as to when the work for the day is completed. Where it is necessary to operate the railroad for 24 hours daily, the regular 8-hour shifts shall be in operation.

In three cases the War Labor Board awarded the payment of overtime rates for time spent in traveling after the regular hours.

In calculating the overtime rate for piecework the board decided that the piece and not the day rate is to be used as the basis if that course is feasible. In only two cases before the board was this matter involved, these being the General Electric Co. case (Docket No. 127) and the Bethlehem Steel Co. case (Docket No. 22). In those awards which establish the 48-hour week as a basis of work, the board went on record to discourage excessive overtime work and directed "that where in 1 day more than 2 hours' overtime in excess of 8 hours is required, then, for that day, overtime shall be paid without regard as to whether or not the worker shall, during that week, have worked the weekly schedule provided for." This view was taken in nine cases.

### Overtime in Certain Organized Trades.

**T**HE union wage scale studies of the United States Bureau of Labor Statistics indicate the general prevalence of the practice of paying extra compensation for overtime in the principal organized trades in the United States. The following trades are included in the latest union wage scale study of the Bureau:<sup>1</sup>

Bakery trades.  
Building trades.  
Chauffeurs, teamsters, and drivers.  
Freight handlers.  
Granite and stone trades.  
Laundry trades.

Metal trades.  
Millwork trades.  
Printing and publishing, book and job.  
Printing and publishing, newspaper.  
Theatrical employees.  
Waiters.

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<sup>1</sup> Bulletin No. 259, Union scale of wages and hours of labor, May 15, 1918.

The standards as to overtime set up in the trades mentioned are, as a rule, followed by the unorganized as well as the organized workers. The Bureau studies in question covered the principal cities of the country and these are generally the largest in their respective sections of the country. Within the cities in question there are found more than one-third of the total number of persons engaged in gainful occupations, not including those in agricultural pursuits.

#### Overtime in Certain Basic Industries.

THE practice of paying punitive overtime rates is common in the largest basic industries of the country, among which may be mentioned the steel, slaughtering and meat-packing, and shipbuilding industries, longshore work, and the merchant marine.

*Iron and steel industry.*—In placing its employees on the basic 8-hour day, effective October 1, 1918, the United States Steel Corporation announced that time and one-half would be paid for all overtime beyond the eight hours.<sup>1</sup> Both mines and industrial establishments of the corporation were affected. Iron and steel employees proper work in two shifts; and mechanics work 10 hours. The order of the corporation directly affected over 250,000 workers.

*Packing industry.*—By an award in May, 1918, Judge Samuel Alschuler, the administrator for the Government in the arbitration of the packing industry disputes, introduced for the first time the principle of payment for overtime in that industry. The rate fixed was time and one-quarter for the first two hours over eight per day and time and one-half for all work after that. This award affected approximately 100,000 employees in the slaughtering and meat-packing industry of the United States. In discussing the question of compensation for Sundays and holidays and week-day overtime, Judge Alschuler used the following language:

As to the fairness of the demand for a higher rate of compensation for Sundays, holidays, and week-day overtime there was no controversy at the hearing, but it was frankly conceded by such of the packers who testified, and by all of the superintendents. In testifying before the United States Commission on Industrial Relations about three years ago Mr. O'Hern, referring to the result of overtime work, said, "We do not get the results in overtime nor do we have men working as efficiently." While presumably he was referring to overtime beyond 10 hours, it would of course have application to the true economic day's work whatever it may be, and it is likewise true that if the overtime beyond the economic day's work is continued on successive days for any considerable time, the impaired results of the labor, and the inefficiency of the laborer would not be limited to the overtime itself, but be reflected in the entire day's work as well. The higher rate serves to deter employers from unnecessarily requiring employees to work at such times; but if such work is necessary it serves also to compensate the employee for the added sacrifice he makes in so working at times when he should have his liberty.

<sup>1</sup> MONTHLY LABOR REVIEW, November, 1918, p. 133.

<sup>2</sup> Idem, May, 1918, pp. 115-127.

As to the particular holidays there was some contrariety of view, and likewise as to the amount of the extra pay for Sundays and holidays. It is my judgment that double time should be allowed for work on Sundays, and on the following holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. Where any operation is continuous in three 8-hour shifts, I do not believe extra pay for Sunday should be allowed if provision is made for relieving the employee from work on some other day of the week.

As to overtime pay for week days, the employers, while conceding the general fairness of the principle, contend that the overtime should be allowed for the excess of hours served in the week. That is, if the basic day were 10 hours, excess time should be allowed only if in the week over 60 hours were served. This system is in vogue in many industries, but I do not think it tends so well to serve the purpose of minimizing the daily hours, or rather of equalizing them from day to day, as would the daily application of the principle. If with the eight-hour day the employers may with immunity work the employees 16 hours daily for three days of the week, and not at all for the others, they might regulate their stock purchases and holdings accordingly, whereas if the added pay for overtime applied to the days, they would be more likely to make effort to conform to the eight-hour day, as it would probably be more to their advantage to carry over some of the stock for another day or two than to pay the added rate for overtime.

The most usual and customary rate for week-day overtime is time and one-half, and as to such time served beyond 10 hours I have no hesitancy in fixing that rate. I am convinced, however, that for a very considerable time after the basic eight-hour day becomes effective, at least until employers and employees have become adjusted to the new conditions, it will from time to time be necessary to serve some overtime. In view of this fact I do not believe it would be fair, at least until long enough after the basic eight-hour workday becomes effective to determine more definitely from experience in this industry, to impose on the first two hours so large a penalty as for the excess over 10 hours; and I have accordingly concluded that on and after next May 5 for the first two hours of week-day overtime the rate of compensation shall be time and one-fourth.

As to the week-day overtime rate for the time intervening between January 14, 1918 (on and after which date the said arbitration agreement is by its terms effective), until said May 5, when the basic eight-hour day becomes operative, week-day time in excess of 10 hours daily shall be compensated at the rate of time and one-half and Sundays double time.

*Shipbuilding.*—In accordance with a series of decisions commencing in March, 1918, the Shipbuilding Labor Adjustment Board fixed the standard of an eight-hour workday with overtime rates for hours in excess thereof. On October 1, 1918, these decisions governing working conditions in the shipyards were harmonized in two decisions, one applicable to Pacific coast yards and the other to the Atlantic coast, Gulf coast, and Great Lakes shipyards. The general overtime rate in the industry is time and one-half.

The number of employees in the shipyards of the United States under control of the Emergency Fleet Corporation, which would include practically all the yards, was 289,594 on June 30, 1919. The maximum number employed is represented by the figures for November, 1918—that is, 336,000.



The terms of the award of March 7, 1918, governing working conditions in the shipyards of the Newport News Shipbuilding & Dry Dock Co., may be cited as typical respecting the matter of overtime. The overtime rate is time and one-half on regular week days and double time on holidays. Employees engaged on certain kinds of repair work also receive double time on week days. The terms of the award respecting overtime are as follows:

(2) Work in excess of these periods on any week day shall be counted as overtime and paid for at the rate of time and one-half.

(3) Work in excess of 60 hours a week for any employee shall not be permitted, except on repair work, or when ordered by the Navy Department or the Emergency Fleet Corporation, or to protect life or property from imminent danger.

(4) Work on Sundays and the following holidays shall be paid for at the rate of double time: New Year's Day, Washington's Birthday, Decoration Day or Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, and Christmas Day.

(5) Men employed on the night shift shall receive compensation 5 per cent higher than is paid to those employed on the day shift.

(6) Employees engaged on repair work in or upon vessels undergoing repair shall receive double time for all overtime on week days as defined above, as well as on Sundays and the specified holidays.

Our purpose in limiting overtime by the above 60-hours-a-week regulation is to discourage a resort to excessive overtime, which leads to inefficiency and tends to lessen rather than to increase production, and to encourage the introduction of the two and three shift systems. The feasibility of working two or three eight-hour shifts in shipbuilding plants has been conclusively demonstrated, and we urge the Newport News Shipbuilding & Dry Dock Co. to take immediate steps looking toward the introduction of additional shifts in their yards.

*American merchant marine.*—By virtue of union agreements and subsequent confirmation by the United States Shipping Board, payment for overtime exists as a general practice in the United States merchant marine. Approximately 270,000 persons are engaged in the merchant marine of the United States.<sup>1</sup>

The rules respecting overtime provide for a special flat rate of compensation per hour, inasmuch as those engaged in the marine occupations are paid the regular compensation on a monthly basis. The principle respecting the payment of overtime is the same for the Atlantic coast as for the Pacific coast.

It may be noted in this connection that overtime rates are paid, for instance, in the merchant marines of Sweden and Italy as shown by recent laws enacted by those countries regarding the merchant-marine service.<sup>2</sup>

*Longshoremen.*—An examination of the various agreements in the longshore industry for the port of New York since 1912 shows the existence of the practice of paying an extra rate of compensation for

<sup>1</sup> Report of the Director of Marine and Dock Industrial Relations Division, U. S. Shipping Board, Dec-31, 1918, pp. 67, 68.

<sup>2</sup> MONTHLY LABOR REVIEW, December, 1919, p. 259; January, 1920, pp. 158-173.

Sunday and holiday work. Likewise the recent awards of the National Adjustment Commission direct the payment of punitive overtime rates in the principal lake and sea ports of the country.

The estimates of the number of longshoremen in American ports range from 100,000 to 150,000.

*Railroad service.*—The Adamson Act of September 3, 1916, established a basic eight-hour day for employees of carriers engaged in interstate and foreign commerce. While overtime is not forbidden under the act and may extend up to the limitations prescribed by the 16-hour law, work in excess of eight hours must be paid for at a rate not less than the pro rata of the standard eight-hour day. This act affected approximately 400,000 railroad employees in the operating branch of the service.

Various orders respecting rates of pay and hours of work of railroad employees have been issued by the Railroad Administration. The latest order issued is Supplement No. 25 to General Order No. 27, effective December 1, 1919. This order provides in practice for an overtime rate of time and a half in the freight service, thus bringing about a radical modification in payment for overtime work on railroads. The section of the order having to do with the basic day and overtime rates is as follows:

(a) In all road service, except passenger service, 100 miles or less, eight hours or less (straightaway or turnaround) shall constitute a day's work. Miles in excess of 100 will be paid for at the mileage rates provided.

(b) On runs of 100 miles or less overtime will begin at the expiration of eight hours; on runs of over 100 miles overtime will begin when the time on duty exceeds the miles run divided by 12½. Overtime shall be paid for on the minute basis, at a rate per hour of three-sixteenths of the daily rate.

(c) Road conductors and trainmen performing more than one class of road service in a day or trip will be paid for the entire service at the highest rate applicable to any class of service performed. The overtime basis for the rate paid will apply for the entire trip.

The recent agreement between the Railroad Administration and the railway employees department of the American Federation of Labor, comprising the various crafts in occupations allied to railroading, that is, the machinists, boiler makers, blacksmiths, sheet-metal workers, electrical workers, and carmen, under date of September 20, 1919, provides as follows, respecting overtime:

All overtime, except as the provisions of rules 7, 9, 10, and 15 apply, outside of bulletin hours, up to and including the sixteenth hour of service in any one 24-hour period, computed from the starting time of the employee's regular shift, shall be paid for at the rate of time and one-half and thereafter at the rate of double time, up to the starting time of the employee's regular shift.

This to include work performed on Sundays, New Year's Day, Washington's Birthday, Decoration Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas, and such State holidays as are now recognized as punitive overtime days at the various points on the respective railroads within the different States.

Likewise the agreement between the Railroad Administration and the maintenance-of-way employees and railway shop laborers, effective December 16, 1919, provides for overtime at time and a half for all work over eight hours. A typical provision of the agreement—there are certain limitations and restrictions—is as follows:

Overtime for laborers in extra or floating gangs whose employment is seasonal and temporary in character, when engaged in work not customarily done by regular section gangs, such as ballasting and rail laying, including the tie renewals incident thereto, and ditching or in improvement work such as bank widening, grade and line changes, riprapping and similar work, shall be computed for the ninth and tenth hour of continuous service, exclusive of the meal period, pro rata, on the actual minute basis and thereafter at the rate of time and one-half time. Such extra or floating gangs will not be used to displace regular section gangs.

Overtime for regular section laborers and other employees except those covered in sections (a-7) and (a-12) of this article shall be computed after the eighth hour of continuous service, exclusive of the meal period, on the actual minute basis at the rate of time and one-half time.

*Garment industry.*—Time and a half for overtime is the prevailing practice in the garment industry of the United States. The number employed in this industry ranges, as estimated, from 125,000 to 150,000. The provisions of the agreements in the cloak, suit, and skirt industry of New York City signed, respectively, in May and June of last year and effective until June, 1922, may be cited as an example for the industry.<sup>1</sup>

All operators, finishers, and piece tailors shall be paid at the rate of time and one-half for overtime. All other classes of workers for whom the last agreement provided that double time shall be paid for overtime shall receive that rate under this agreement.

*Coal mining.*—The payment of extra compensation for overtime is not in practice in the coal-mining industry of the United States. The anthracite agreements provide merely for a pro rata overtime. The only information which the Bureau has concerning the payment of overtime has reference to Germany's mining industry, in which the practice is to pay double time for Sundays and a less rate for week-day overtime. In Saxony, for instance, the overtime rate is time and one-quarter for work on regular days.<sup>2</sup>

Obviously there are industries and occupations other than those considered above in which the practice of paying a higher rate than normal for overtime work is quite generally observed either through the industry as a whole or in certain districts or markets. Thus the lumber industry in the Northwest States, affecting probably 50,000 workers, began the practice during the war. This survey of the extent to which punitive overtime is paid in American industry has merely sought to bring together the more important examples such as could be more readily discovered.

<sup>1</sup> MONTHLY LABOR REVIEW, December, 1919, pp. 53, 57.

<sup>2</sup> Economic Notes from German and Austrian Newspapers, No. 53, Dec. 22, 1919, issued by the British Government, pp. 11, 67.



## Recent Railroad Wage Award in Queensland, Australia.

THE Queensland Industrial Gazette for November, 1919, publishes the text of an award made by the court of arbitration governing the wages and hours of labor of railroad employees in that State. The terms of the award, effective as to wages on July 1, 1919, and as to hours on November 1, 1919, are here presented for a few of the most important occupations. The wages, shown in English currency,<sup>1</sup> differ in the three divisions into which the State is divided.

The figures given for clerks and telegraphers apply to persons 21 years of age and over. The table shows the minimum salary established for each occupation. This minimum is to be increased by not less than £10 after two years, and by not less than £10 each year thereafter until the total increase amounts to £40. In the interest of efficiency the commissioner of railways may increase a salary to £235, £245, or £260, in the respective divisions. The hours shall be 6½ Monday to Friday, inclusive, and 3 on Saturday, making a total of 36½ hours per week. Overtime shall be paid for at time and a half. This group does not include typists, switchboard attendants, or comptometer operators.

The duties of car conductors are to examine and collect tickets, to assist guards in taking on and discharging passengers, and to cleaning and preparing their own cars. The basic hours in this occupation are 48 per week, with overtime paid for at time and a half. Guards are the men in charge of trains. Their basic hours are 8 per day. Overtime is paid for at time and a half, and after 12 hours at double time.

The basic hours and the provision for overtime for engine (locomotive) drivers and firemen are the same as for guards.

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<sup>1</sup> Owing to fluctuations in the rate of exchange, conversions are not made into United States money. Normally the value of the pound sterling is \$4.8665, of the shilling, 24.3 cents, and of the penny, 2.03 cents.

WAGES PER HOUR OF RAILROAD EMPLOYEES IN QUEENSLAND, AUSTRALIA, BY  
OCCUPATION AND DIVISION, UNDER AWARD EFFECTIVE JULY 1, 1919.

Occupation.	Rate of wages per hour in—		
	Southern division.	Central division.	Northern division.
Clerks and telegraphers (minimum salaries) .....	1 £175	1 £185	1 £200
Car conductors.....	1 215	1 225	1 240
Guards:	s. d.	s. d.	s. d.
First class.....	2 0	2 1	2 2½
Second class.....	1 10½	1 11½	2 1
Third class.....	1 9	1 10	1 11½
Engine drivers:			
First class.....	2 2	2 3	2 4½
Second class.....	2 0½	2 1½	2 3
Third class.....	1 11	2 0	2 1½
Fourth class.....	1 9½	1 10½	2 0
Firemen:			
First year.....	1 6	1 7	1 8½
Second year and thereafter.....	1 7½	1 8½	1 10
Engineering workshops:			
Acetylene and (or) electric welder.....	2 2	2 3	2 5
Blacksmith.....	2 0½	2 1½	2 3½
Boiler maker.....	1 11½	2 0½	2 3
Bricklayer.....	2 0½		
Cabinetmaker.....	1 11½	2 0½	
Carpenter.....	1 11½	2 0½	2 5
Carriage builder.....	1 11½	2 0½	2 5
Coal man (power house).....	1 8½	1 9½	
Coppersmith.....	2 0½	2 1½	2 3½
Driller.....	1 8½	1 9½	2 0½
Drop-hammer driver.....	1 8	1 9	1 11½
Drop-hammer forger.....	2 1½	2 2½	
Electrical mechanic.....	1 11½	2 0½	2 3
Engineman (shop).....	1 10½	1 11½	2 1½
Fireman (power house).....	1 8½	1 9½	
Fitter (coach and wagon).....	1 11½	2 0½	
Fitter (engine).....	1 11½	2 0½	2 3
Laborer.....	1 7	1 8	1 10
Laborer (blacksmith's shop).....	1 7	1 8	1 10
Machinist (iron).....	1 10	1 11	2 3
Molder and core maker.....	2 0½	2 1½	2 3½
Oiler.....	1 8	1 9	1 11½
Painter (carriage).....	1 11½	2 0½	2 3
Painter (locomotive).....	1 10½	1 11½	
Painter's laborer.....	1 7½	1 8½	1 10½
Pattern maker.....	2 0½	2 1½	2 4½
Plumber.....	1 11½	2 0½	2 3
Tinsmith.....	1 11½	2 0½	2 3
Toolmaker and (or) diesinker.....	2 0½	2 1½	2 5
Turner (wood).....	1 11½	2 0½	2 3

<sup>1</sup> Rate per annum.

## Changes in Wages and Hours in Certain Industries in France, March to August, 1919.

THE administrative councils of various French Departments have adopted scales of wages in reconstruction and similar work done on the public account, according to an article in a special issue of the Bulletin of the Ministry of Labor.<sup>1</sup> Wages vary according to occupation and local conditions, and districts are designated as "devastated" and "nondevastated." Higher wages obtain in the former. Such scales have been published for the Departments of Marne, Meurthe-et-Moselle, Meuse, Ain, and the Seine, and in addition for the military establishment (artillery) at Toulouse.

<sup>1</sup> Bulletin du Ministère du Travail, Paris, June-July-August, 1919, pp. 293-310.

The following is the scale for public excavation and construction work adopted by the Department of Marne July 30, 1919, eight hours to constitute a day's work:<sup>1</sup>

SCALE OF WAGES ON PUBLIC WORKS IN DEVASTATED AND NONDEVASTATED DISTRICTS OF THE DEPARTMENT OF MARNE JULY 1, 1919, BY OCCUPATION.

District and occupation.	With board and lodging.		Without board and lodging.	
	Per day.	Per hour.	Per day.	Per hour.
Devastated districts:	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>
Adult laborers.....	13.60	1.70	15.60	1.95
Diggers and carters.....	15.60	1.95	17.60	2.20
Skilled laborers.....	17.60	2.20	19.60	2.45
Skilled general mechanics.....	19.60	2.45	21.60	2.70
Nondevastated districts:				
Adult laborers.....	12.60	1.575	14.60	1.825
Diggers and carters.....	14.60	1.825	16.60	2.075
Skilled laborers.....	16.60	2.075	18.60	2.325
Skilled general mechanics.....	18.60	2.325	20.60	2.575

Persons under 16 years of age are paid one-half and those between 16 and 18, 70 per cent of these wages. Normal wages are paid for overtime not to exceed two hours per day.

The Department of Meurthe-et-Moselle, on July 20, 1919, to help meet the increased cost of living, increased the cost-of-living bonuses already in force, which ranged from 2.75 to 4 francs per day, by the addition of from 0.25 franc to 1 franc. Women were granted an increase of 0.50 franc, young persons 0.25 franc, and women who are heads of families an increase of 0.75 franc. It is understood that these wages were to remain unchanged until January 1, 1920; but whenever any change in cost of living is greater than 15 per cent of that of July 15, 1919, the scale shall be revised upon demand of either the employer or employees.

In the Department of Meuse the following scale was adopted for public work either directly under public authorities or under contractors. It was to remain in force for at least three months from August 1, 1919.

HOURLY WAGES ON PUBLIC WORKS IN THE DEPARTMENT OF MEUSE, EFFECTIVE AUGUST 1, 1919, BY OCCUPATION.

Occupation.	Devastated districts.	Non-devastated districts.
	<i>Francs.</i>	<i>Francs.</i>
Ordinary laborers.....	1.30	1.00
Carters.....	1.55	1.20
Glaziers, painters, paper hangers.....	1.80	1.40
Excavators.....	1.95	1.50
Carpenters, locksmiths, tinmiths, zinc workers, plumbers, roofers, marble cutters, chimney builders.....	1.95	1.50
Plasterers.....	2.00	1.55
Stonecutters, cabinetmakers, marble-cutters.....	2.10	1.60
Asphalt layers.....	2.15	1.65
Miners, quarrymen, road builders, masons, cement workers, bricklayers, brick pavers, pavers.....	2.20	1.70
Sewer builders, stone layers, joiners.....	2.35	1.80
Masons, rough coating.....	2.45	1.90
Blacksmith, warehouse.....	2.60	2.00

<sup>1</sup> Owing to fluctuations in the value of the franc, conversions are not made in this article into United States money. Normally, the par value of the franc is 19.3 cents.



In addition to wages, a cost-of-living bonus in either district of 4 francs per day was allowed. An allowance of 3 francs was granted to workmen employed at a distance exceeding 6 kilometers (3.7 miles) from their homes, unless lodged by the contractor, and of 1.5 francs to those living at a distance of more than 6 kilometers who return home at night.

Rates per hour fixed on June 20, 1919, in the city of Bourg in the Department of Ain, are as follows: Sawyers, helpers, skilled, 1.10 francs; masons, 1.25 francs; coppersmiths, locksmiths, chimney builders, and sawyers, 1.30 francs; joiners, wall painters, 1.40 francs; stonecutters, 1.50 francs; masons, tinsmiths, tilers, 1.55 francs; and carpenters, 1.60 francs.

The following scale was established on March 29, 1919, for the military establishment (artillery) at Toulouse:

SCALE OF WAGES IN FORCE AT THE MILITARY ESTABLISHMENT AT TOULOUSE,  
EFFECTIVE MARCH 29, 1919.

Occupation.	Weekly wages.	
	Minimum.	Maximum.
	Francs.	Francs.
<b>Metal working:</b>		
Millwright, turner, hand blacksmith.....	52.50	66.00
Millwright, turner, pattern tracer, fitter, reamer, blacksmith.....	48.00	60.00
Driller, planer, mortiser, and similar occupations.....	43.50	57.00
Sheet-iron worker, zinc plumber.....	45.00	57.00
Coppersmith, and pattern tracer on tin.....	51.00	63.00
Sheet-iron and copper worker, tinsmith.....	45.00	57.00
Welder.....	45.00	57.00
Melter and molder, brass and bronze, handwork.....	43.50	57.00
Melter, brass.....	52.50	66.00
<b>Woodworking:</b>		
Pattern maker, finisher.....	51.00	63.00
Lathe man, turner, sawyer.....	51.00	63.00
Saw sharpener.....	45.00	57.00
Sawyer, mortiser, planer, machinememen.....	43.50	57.00
Joiners—1st class.....	48.00	60.00
2d class.....	45.00	57.00
Carpenter.....	51.00	60.00
Wheelwright, cooper.....	45.00	57.00
<b>Building trades:</b>		
Mason.....	42.00	51.00
Structural-iron worker, plasterer, wall painter, roofer, chimney builder.....	43.50	57.00
Mason, cement worker, chimney builder, industrial.....	48.00	60.00
<b>Electrical machines:</b>		
Electrician, motor power men, armature winder.....	52.50	66.00
Electrician, ordinary, machinememen.....	45.00	57.00
Engineer, fireman, machine tenders.....	43.50	57.00
<b>Other trades:</b>		
Harness maker.....	43.50	57.00
Saddle maker.....	48.00	60.00
<b>Miscellaneous:</b>		
Digger.....	46.80	54.00
Chauffeur, coachman, driver, groom.....	39.00	51.00
Assistant warehouseman, watchman.....	46.80	54.00
Warehouseman, principal.....	51.00	60.00
Gardener, chief; roadbuilder, chief; baggageman.....	48.00	60.00
Superintendent of infirmary.....	48.00	72.00
Helper, infirmary.....	39.00	48.00
Messenger, orderly, yard watchman.....	43.20	51.00
Nursery guardian ( <i>de crèche et de garderie</i> ).....	42.00	51.00
Orderly, under 18 years of age.....	21.00	42.00
Chemist, assistant.....	54.00	84.00
Laborer, male or female, skilled.....	45.00	51.00
Laborer, male or female, unskilled.....	42.00	48.00
Women doing manual labor in workshops heretofore done by men.....	40.20	45.60
Laundry employees, females.....	36.00	45.60
Garment makers, females.....	31.80	39.00

All these workers, except those classified as "Miscellaneous," when employed by the hour, receive 25 per cent more than normal wages.

In the Department of the Seine committees of employers and employees on July 2, 1919, adopted a scale for an eight-hour day in building and construction trades as follows: Journeyman plumber, zinc roofer, and gas fitter, 20 francs; helper, 14 francs; and street guard, 10 francs per day. In metal construction: Pattern maker and shift foreman, blacksmith, 2.75 francs; hammersmith, 2.15 francs; fitter, locksmith, ironworker, driller, stamper and chipper, riveter, general smith, bellhanger, metal-stairway builder, 2.50 francs; and unskilled laborer, 2 francs per hour. Woodworkers: Carpenter, stair-builder, 2.50 francs per hour.

#### Collective Agreements Regulating Wages and Hours.

**T**HE Master Printers' Union of France, the French Federation of Bookworkers, and the National Federation of Lithographers, represented by their respective accredited committees, acting under the law of April 23, 1919 (8-hour law), entered into an agreement as of June 11, 1919. The following provisions are selected as the most important ones: Work shall begin and end at a given signal; eight hours shall constitute a day's work; the division of the week's work shall provide for either 45 or 44 hours of work for the first five days and 3 or 4 hours on Saturday; in phototype and similar establishments no arrangement calling for over 9 hours in any one day shall be established.

Until January 1, 1920, certain exceptions were permissible, but overtime shall not exceed two hours per day.

Permanent exceptions in the employment of shopmen, overseers, those doing preparatory and preliminary work, laborers, delivery men, drivers, shop and machine cleaners, etc., are allowable, provided the hours of overtime do not extend beyond two hours of the regular working time of the establishment. Temporary exceptions are allowed in special cases, such as: (1) Seasonal or extraordinary amount of work; (a) 120 hours per year, with a maximum of two hours' overtime per day, (b) 15 Sundays per year; and (2) In national need or in case of actual or imminent accident.

The agreement is valid until January 1, 1922, and unless notice is given by October 1, 1921, it is to remain in force for one year longer.

Regular working hours are between 7 a.m. and 7 p.m. Work between 7 p.m. and 7 a.m. is paid for at 25 per cent above regular wages. However, if the work during the night hours is overtime it is paid for as follows: First two hours, 33 per cent; the following two hours, 50 per cent; and further extra hours, 100 per cent above regular wages. Sunday and holiday work, to 12 noon, is paid for at 50 per cent, and after 12 noon, 100 per cent above regular wages.

*Petroleum refineries and warehouses.*—An agreement was entered into June 16, 1919, between the national association of employers in the petroleum industry and the General Federation of Workers in Chemical Products. This agreement provides for an 8-hour day or a 48-hour week. Time for computing hours of labor begins as soon as the employee enters the building, and work ceases 10 minutes before the clock strikes the quitting hour. Certain classes of employees are excepted: Overseers, foremen, distillers, watchmen, and delivery men.

Overtime work is paid for at 1.65 per cent of regular wages, and is limited to 100 hours per year.

*Agriculture.*—An agreement covering the district of Melun, between the employers' association and the agricultural workers' unions, was entered into August 8, 1919. In addition to the minimum wages established an employee is entitled to a garden of five ares (598 square yards) cultivated and fertilized at the expense of the employer, or in default of that, to a compensation of 100 francs.

Wages for general laborers employed at all kinds of work are 10 francs per day; for employees under monthly contracts—drivers and carters—not boarded and lodged, 300 francs per month, and garden; boarded and lodged, 160 francs per month. Wages for other workers are as follows:

Man and wife, farm family (*Ménage de ferme*), 250 francs per month, board and lodging; farm maid, 90 francs per month, board and lodging; women engaged in light work, 0.60 franc per hour; and women engaged in threshing and distilling, 0.75 franc per hour. When performing work equal with men's, women shall receive wages equal to men's.

Overseers, 350 francs per month without board and lodging, or 200 francs with board and lodging.

Shepherds, 350 francs per month without board and lodging, and the shepherd to provide food for his dogs. When the employer boards and lodges the shepherd and provides food for his dogs, wages are reduced to 160 francs.

Tractor operators, 400 francs per month, without board and lodging.

Threshing machine hands, 12 francs per day.

Distillery men, 360 francs per month, minimum—increased wages for higher grades of work.

Those engaged in harvesting are paid twice the usual rate. Men employed at other work on the farm receive 400 francs per month plus a bonus of 50 francs during harvest, and day laborers are paid 16 francs per day. In job work wages are based on general hourly earnings.

The working day of from 5 a.m. to 7 p.m. is abolished, except during harvest, and the regulations issued by the public authorities are to be observed. A weekly day of rest, with other social laws relating



to agriculture, are to be vigorously enforced. Lodging employees in unhealthful quarters is prohibited.

Wages of persons not able to perform a normal day's work are to be determined by the arbitration commission, which shall also see that work beyond their physical strength is not required of such employees. Foreign laborers work under the same conditions as native laborers and are paid the same wages.

A mixed arbitration commission, composed of from three to five members of the district union, is charged with the supervision of this agreement. In case of threatened dispute the commission shall advise with the employer.

This agreement remains in force until June 1, 1920, and in default of notice of its termination, for one year longer. Notice of desired changes shall be filed two months before the expiration of the agreement. No person shall be discharged because of strikes or questions of unionism.

*Other agreements.*—Agreements have been entered into covering the rubber industry of the Paris district; the boot and shoe industries of Marseille, and undergarment making in Paris. These provide for the putting into operation of the eight-hour law, minimum wages, etc.

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## Increased Wages for Textile Workers at Lyon, France.

ACCORDING to a report from the American consul at Lyon, France, the strike of textile workers which was called on October 27, 1919, was ended on October 31 by the signing of a new wage agreement. The employers had agreed to a wage advance but stated that they could not guarantee a minimum daily wage without the guaranty of a minimum production. The discussion turned principally on the minimum salary to be guaranteed the workers, reports the consul, and the question was finally submitted to the mayor of Lyon for arbitration. He suggested that in case the mean production established by common consent was not reached "for reasons for which the laborers were not responsible, the minimum price of a day's work should be due just the same. If there is a difference of opinion on this point the difference should be submitted to a mixed arbitration commission." Following this arbitration, which closed the strike of Lyon spinners, the following convention was signed:

1. A study shall be made in each factory as to rates of wages for all articles now being manufactured, or possible of future manufacture, which shall assure a workwoman of average ability and efficiency the following daily earnings:<sup>1</sup>

<sup>1</sup> Owing to fluctuations in the value of the franc, conversions into United States money are not made. Normally the par value of the franc is 19.3 cents.

*Daily earnings of textile workers in Lyon, France, under agreement of Oct. 31, 1919.*

Women working—	Francs.
With 1 loom, plain.....	10
With 2 looms, plain.....	12
With 1 loom, fancy.....	11
With 2 looms, fancy.....	14
With 1 loom, velvet, plain.....	<sup>1</sup> 12 to 14
With 1 loom, velvet, fancy.....	<sup>1</sup> 14 to 16
Spindlers and other similar skilled workwomen.....	<sup>2</sup> 9 to 10
Throwers, spindlers, and reelers, skilled workwomen.....	10
Cotton reelers, skilled workwomen.....	<sup>2</sup> 9 to 10
Boiled-silk reelers and rewinders, skilled workwomen.....	11
Twisters, warpers, and dayworkers.....	12
Male laborer (able bodied):	
Per day.....	15
Per month.....	350

2. These rates will be based on a minimum production which will assure the daily earnings of an average worker under normal conditions of work, it being understood that this minimum production is to be established by agreement between the workmen interested and the employers.

3. Rules governing the spinning of each article should be communicated to the workwoman; this applies also to the verifying of pieces already spun, if she so desire. The method of accomplishing this should be agreed to in each factory by the workers and the employer.

4. In all cases where the minimum production established by agreement is not reached, for causes beyond the control of the workers, a normal day's earnings will still be paid, on condition that the spare time be employed in the service of the factory.

In case of disagreement, the matter in controversy shall be investigated by both parties, and if they can not agree the question shall be submitted to arbitration by a mixed commission.

5. When articles exactly similar are spun in several factories under the same conditions of production the rates shall be identical.

6. For loom setters, capable of supervising the section to which they have been assigned, and for all skilled loom mounters the minimum wage is fixed at 500 francs per month.

If the above-mentioned loom setters and mounters are engaged by the day, the day's wage shall be 20 francs. In this case, all overtime work shall be paid for at the rate of one and one-third times the usual rate.

7. In the future no conflict should take place until the mixed arbitration commission shall have been called upon thoroughly to study and discuss the questions at issue, with a view to avoid further misunderstanding.

<sup>1</sup> According to article.

<sup>2</sup> According to professional value.

## Return to Piecework Rates in Germany.

ONE of the first economic effects of the German revolution was the refusal of German workers to work at piecework rates, and the consequent general decrease in output. It seems, however, that a change of mind has taken place recently with respect to piecework. *Soziale Praxis*<sup>1</sup> states that *Vorwärts*, the organ of the Social-Democratic Party, advocates piecework and a bonus system in an article which has received much attention. Payment by results is regarded as being absolutely necessary in State-owned establishments. The output of the railway shops has dropped to such an extent that there are not enough cars to carry even the reduced coal output. The transport crisis can not, however, be regarded as the only or chief explanation of the coal crisis. It may be the reason for the acute shortage which has been experienced at different times and places, but it does not account for the chronic shortage which only increased output can remedy. Nothing could be worse at the present moment, the article states, than to tell the miners that increased output will not avail because of the transport crisis. On the other hand, it is time to put an end to the state of affairs which now prevails in the railway shops. A large proportion of workers would welcome the declaration that in the railway shops some work shall be done in return for good wages. "*Vorwärts* is right," however, says *Soziale Praxis*, "when it refrains from confining the question of piecework wages to the railway shop workers but examines it in principle as the present situation demands, and rejects the old saying 'piecework is murder' (*Akkordarbeit ist Mordarbeit*)."<sup>1</sup> *Vorwärts* states:

Piecework, if reasonably applied, is the most just method for determining wages. The trade-unions have adapted their activities in past years accordingly; they never have waged a fight against piecework as such, but against the abuses to which it is subject. \* \* \* Sensible workers will regard piecework as desirable inasmuch as it will enable diligent workers to earn a much higher wage than under the present time wages system.

In addition to the piecework system, consideration should also be given to the bonus system, which has been opposed in Germany while in Russia it has been advantageously adopted. The current wage rates were retained and standardized in Russia. They constituted the payment for the latest recorded output. Any output over and above this was awarded a bonus in addition to the standard wage. The bonuses were increased progressively. According to the reports received from the Soviet Government on the situation of the labor market, the bonus system has exercised an exceedingly favorable influence on production. In some factories output has increased 25 to 40 per cent in a short period.

The effect of the piecework and bonus systems would be increased if special coupons were given to the workers who exceeded a fixed minimum of work. This would

<sup>1</sup> *Soziale Praxis und Archiv für Volkswohlfahrt*, Berlin, Sept. 4, 1919, p. 879.



enable the workers to obtain the extra rations allowed to workers in the heavy and most fatiguing industries. In this way a worker who had applied himself with diligence and industry to his task in the interest of the community would be entitled to receive not only a larger number of paper money notes but also a larger supply of necessary foodstuffs, and thus be enabled to renew his strength.

The social-democratic publication is right, says *Soziale Praxis*, when it asserts that the German nation is so sick that it does not hear the doctor's advice to do more work. It needs a daring operation to force the process of recovery. The revolution, which led to the collapse of authority in the management of production, removed many barriers. At first the abolition of piecework was warmly welcomed, as it was thought that in a State in which all the people were imbued with a sense of duty there would be no necessity for any other incentive to work. Now the disappointment is great when it is realized that the sense of duty is not equal in all sections of the community.

#### Piecework Rates as an Incentive to Work.

**I**N AN article on piecework rates as an incentive to work,<sup>1</sup> *Soziale Praxis* says:

The introduction of piecework as a means of increasing the zest for work is being vigorously discussed among railwaymen. The reason for this is to be found in the orders issued by the minister of railways. These recommend the strict observance of the eight-hour day and the reintroduction of piecework as a means of combating the prevailing aversion to work in the railway workshops. Discussions have taken place in the Ministry of Labor between representatives of the Government and of the railwaymen's unions on ways and means of increasing the output of the railway shops. The General Union of Railwaymen has called a conference of the executive committee and expert officials to discuss the same problem. The Central League of Officials has also taken up the matter.

The representatives of the workers admit that there is some aversion to work, but the blame does not lie on workers only. To some extent railwaymen are exhausted after the arduous work during the war, and they should have had some rest. Bad materials and unpractical methods of manufacture and work are other causes of diminished output. Attention must therefore not be exclusively centered on the wage system, but an effort should be made to provide good materials and tools. Otherwise the workers would suffer if the piecework system were introduced, and would energetically protest against it. The system could be introduced for new work, but not for repair work.

In spite of this rejection of the piecework principle, the General Union of Railwaymen has declared itself in favor of the piecework system in certain works for a three months' test. The workers maintain that only far-reaching rights of participation in management can be effective in increasing the zest for work.

The right to participate in management should be granted as soon as possible. The minister of railways has issued instructions to the railway administrations that all preparations should be made for elections for the railway works councils to be held as soon as the works council law is promulgated.

<sup>1</sup> *Soziale Praxis und Archiv für Volkswohlfahrt*, Berlin, Sept. 18, 1919, p. 920.

It is not only among railwaymen, but also among other workers, that the value of the piecework system is being realized. In this connection the following award made by the State arbitration board at Brunswick on the occasion of the closing down of an automobile factory is worthy of attention:

The firm shall be entitled to close down its works as long as the economical operation of the works is endangered by the refusal to perform suitable piecework. As soon as the workers declare their willingness to undertake piecework the firm shall reinstate all its former staff. There shall be negotiations between the two parties as to the system of piecework, whether team or individual piecework or the bonus system, which should be adopted.

In some instances workers are returning voluntarily to the piecework system. One firm, Bergmann in Suhl, had given notice of dismissal to all its salaried employees and workers because the diminution of output had made it questionable whether operation could be carried on at a profit. The notices were, however, withdrawn because the workers declared that they were prepared to accept the piecework system. In the Zeiss Optical Works at Jena two votes were taken on the question. The first ballot showed no great inclination on the part of the workers to adopt piecework, but a big majority in favor was obtained on a second ballot.

#### Production Committees in Railway Workshops.

VORWÄRTS<sup>1</sup> reports that as a result of many complaints of lack of material and tools and against old-fashioned methods in the railway workshops, which, the railwaymen say, have greatly hindered production, the German Ministry of Railways has decided to reorganize the engine and carriage repair shops on a modern basis. The new system secures for the workers a large measure of the desired share in control. In November, 1919, the article states, "production committees" will be introduced in every workshop with the object of increasing output and organizing the work on modern lines.

The production committees will be invested with extensive powers. In each occupational group, for instance, locksmiths, turners, wheelwrights, smiths, clerks, etc., two employees will be appointed to supervise production in collaboration with the existing workers' committee or works council and to suggest reforms. Their duties will be to determine whether each worker is suitably employed and able to perform the required minimum of work; to consult the engineers and directors in individual works with regard to better methods of work and desirable innovations; to keep the stores well supplied so that repairs may not be unnecessarily delayed; and to act as liaison officers between the workshops and factories and the managing directors.

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<sup>1</sup> Vorwärts, Berlin, Oct. 30, 1919.

## A New Piecework System.

A NEW piecework system in operation in a Government railway repair shop is described in Vorwärts<sup>1</sup> as follows:

The former system of piecework must be considered as a thing of the past. This method, while securing a higher wage to the specially industrious or capable worker, failed to stimulate production as a whole.

A new system, which is of the nature of profit sharing, has led to increased production in the Government's railway repair shops at Golm-Mark. A commission, composed of a works manager, a delegate of the workers, and a railway official, calculates the number of hours necessary for the performance of a certain piece of work, on the basis of actual experience and average production.

While aiming at the highest possible technical perfection, the workers try to carry out the prescribed task in the shortest possible time. By a special scheme the saving in cost resulting from the difference between the actual number of hours worked and the calculated number is shared between workers and employers. Each individual worker is paid according to output and capacity on a scale arranged between the management and the workers. The resulting average of hours and wage rates is that for which payment is agreed upon in the repair contract. If, for instance, the agreed average price per hour is 2.30 marks<sup>2</sup> plus 180 per cent for general expenses (some such percentage is usually allowed to every firm of contractors as compensation for expenses) the following result will obtain:

A railway freight car, according to the standard calculated, requires 500 hours for repair. The work is actually performed in 408 hours, so that a saving of 92 hours is effected. Ninety-two, the number of hours saved, multiplied by 2.30 marks gives 211.60 marks. The 180 per cent for expenses amounts to 380.88 marks; the sum of the two is 592.48 marks. Half of this sum, or 296.24 marks, goes to the gang of 10 workers employed on the job. The combined wages of these 10 workers for the job in question were 947.90 marks. The extra compensation of 296.24 marks paid to them for the saving in time amounts, therefore, to somewhat over 31 per cent.

Newly employed workers are paid a share of the profits after 12 days' work with their gang. The standard number of hours fixed by the commission is not reduced when the worker receives higher wages.

This system has already been in use in the workshops for four months. As a result production has increased 100 per cent. Another advantage is that the employment of supervisors has become unnecessary. Further, if any member of a gang shows a lazy disposition, the other members refuse to incur the loss of profit involved, and demand his dismissal.

<sup>1</sup> Vorwärts, Berlin, Oct. 4, 1919.

<sup>2</sup> Owing to fluctuations in exchange value conversions into United States money are not made. The normal par value of the mark is 23.8 cents.



## Shorter Working Day in German Coal Mines.<sup>1</sup>

ACCORDING to the *Kölnische Zeitung*,<sup>2</sup> certain representatives of the miners' unions are now opposing the early introduction of the six-hour shift in the coal mines. The *Bergarbeiterzeitung*, the journal of the Free (Social-Democratic) Miners' Union, demands that there shall be an international agreement with regard to the six-hour shift, and calls attention to England, which provides for this shift in 1921 only if the industrial situation allows it. At a meeting of the commission appointed to inquire into the working hours in the Ruhr district the workers demanded that the six-hour shift should be introduced on February 1, 1920, and it was clearly pointed out that if this demand were not acceded to by that date the workers would take by force what was not accorded them as an act of grace. The increasing coal shortage makes it plain that a serious danger lurks in any further curtailment of the working hours. At the beginning of February the shortage will be still more serious, and the necessity of increased output makes the curtailment of working hours out of the question.

The *Bergarbeiterzeitung* examines the question as to which is the country in which the shortest working hours for miners prevail. In France the eight-hour shift, "bank to bank," was made legal from July, 1919; but if national requirements demand it, the Government may, after hearing the views of the employers' and workers' organizations, lengthen the working hours. In Austria the eight-hour shift was introduced in July, 1919, while in Belgium, although no new regulations for the mines have yet been issued, the eight-hour shift also prevails. In Poland the shift below ground is between eight and eight and one-half hours, "bank to bank," while in Russia the eight-hour shift has been introduced by the Soviet Government, though in the Moscow and Don districts the shift is seven and one-half hours.

*Soziale Praxis*<sup>3</sup> reports that the commission appointed to examine the question of working hours in coal mines in the Ruhr district met in Essen on December 8 and 9, 1919, and while there seems a prospect of an agreement between the employers and workers as regards certain questions, e. g., the housing problem, the transport system, food and clothing grants for miners, as regards working hours the views of the employers and workers are diametrically opposed.

With regard to the housing problem it was stated that, owing to difficulties that are well known, it will take between three and four

<sup>1</sup> See MONTHLY LABOR REVIEW, January, 1920, pp. 173-177, for an article on the same subject.

<sup>2</sup> *Kölnische Zeitung* Cologne, Dec. 21, 1919. Morning edition.

<sup>3</sup> *Soziale Praxis und Archiv für Volkswohlfahrt*, Berlin, Dec. 18, 1919.

years to provide 70,000 homes for about 100,000 miners. With regard to transport, conditions are comparatively satisfactory, for about 15,000 cars are now available, which are sufficient for the transport of 150,000 metric tons of newly mined coal and 10,000 tons from the dumps, so that by the end of February all the dumps should have been removed.

In the matter of working hours the chairman of the commission, Prof. Gothein of Heidelberg, gave an alarming account of the grave consequences of the coal shortage. Many branches of industry in South Germany, he said, had been obliged to close down and many others would shortly have to follow suit. Electricity and gas works could provide only half their normal output, and many had closed temporarily, with the result that factories had closed and the workers were starving. In Heidelberg gas was being produced from wood, whose acid content injured the gas pipes. The Berlin metal workers had sent a deputation to Essen to beg the miners to produce more coal.

In view of this situation the employers are unconditionally opposed to any curtailment of the shifts, and actually demand their temporary prolongation from seven hours to eight. But the workers cling obstinately to their demand that from February 1, 1920, the six-hour shift must be introduced. Under the old conditions the average life of a miner was only 45 years, and miners now claim that they can not be blamed for desiring to prolong their lives. Justifiable as their claims may be, at the present juncture the country's requirements should take first place. Prof. Francke appealed to the workers to recognize this, and pointed out that should the Ruhr district be occupied by the Entente by reason of nonfulfillment of the treaty terms the miners would probably be compelled to work eight or nine hours, as in the Saar district. Attempts to arrive at a compromise between the two opposed views failed.

## MINIMUM WAGE.

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### Minimum Wage for Women in Hotels and Restaurants in District of Columbia.

By CLARA E. MORTENSON.

THE conference called by the Minimum Wage Board of the District of Columbia to recommend a minimum wage for women employed in hotels, restaurants, apartment houses, clubs, and hospitals on February 3, 1920, reported that \$16.50 a week is the least sum with which a self-supporting woman in the occupations under inquiry can maintain herself according to proper standards. This is the same figure unanimously voted by the mercantile conference<sup>1</sup> on July 12, 1919, as the minimum living wage for women in that industry. The conference on the printing, publishing, and allied industries,<sup>2</sup> the first conference called by the Minimum Wage Board, on April 8, 1919, unanimously recommended a minimum wage of \$15.50 for women employed in the industries under consideration.

In the conference on the hotel, restaurant, and allied industries unanimity was not obtained. The employers' representatives voted against the recommendations submitted to the board.

The conference held nine meetings before a basis of agreement could be reached. The ordinary difficulties attending a just wage determination were augmented in the industries under consideration by the prevalence of the system of providing employees with room or board, or both, as part of their compensation. Should the existence of this system be recognized? If so, in what way? Three possible methods of solution were advanced during the conference: (1) That the conference should recommend a minimum wage, coupled with the stipulation that whatever accommodations were provided by the employer must be provided in addition to this wage. (2) That the conference should recommend a minimum wage, with the provision that if the employer furnished room or board the amount which he might charge for these accommodations should be agreed upon by the employer and employee in each specific case. (3) That the conference should recommend a minimum wage and also the maximum amounts which an employer who provided room or board might charge for these accommodations.

<sup>1</sup> See MONTHLY LABOR REVIEW August, 1919, pp. 199, 200; October, 1919, pp. 163, 164; November, 1919, pp. 217, 218.

<sup>2</sup> See MONTHLY LABOR REVIEW, May, 1919, pp. 217-219; July, 1919, pp. 165-167.



The representatives of the employees stated from the beginning that they preferred an all-cash wage. With this wage they would be in a position to eat and live wherever they chose. If an employer provided room and meals for his employees, such accommodations should be in addition to the minimum wage. The employers protested against such an arrangement, their main argument being that it would be practically impossible to prevent the employees who were handling food from eating what they wanted. This large group of workers would thus get their meals at the expense of the employer and have the money allowed for food in the minimum wage rate for other purposes.

The employers, however, were willing to pay an all-cash wage, provided that they could charge their employees for food and room, such charge to be a matter of individual bargaining between the employer and the employee. The workers objected to this scheme on the ground that the superior bargaining power of the employer would leave the actual determination of the charge largely in his hands. The employee would either have to accept his terms or look elsewhere for work.

#### Determining the Charge for Accommodations.

THE remaining proposition was that a minimum wage rate should be determined and also the maximum amounts which an employer who furnished room or board, or both, to his employees should be allowed to charge for these accommodations. This scheme was generally accepted as the best method of protecting the interests of all parties concerned. But the question at issue was, upon what basis should the fixed charge be determined—cost to the employer or value to the employee.

The representatives of the woman workers contended that the basis should be cost to the employer. They argued that generally speaking it was of advantage to the employer to have his employees live in the establishment. The "living in" system has been opposed for years by the workers and is gradually being broken down, but if in addition to the natural advantage of having the employees on the premises an employer was allowed to make profits on the accommodations provided them, the "living in" system with all its evils would be given a new lease of life. Theoretically, the employee would have the option of taking or leaving the job, but practically the person who controlled the job, the employer, would hold the option. The applicant for work would be told that a certain wage would be paid, from which would be deducted the legal allowance for room and board. Among an unorganized group of workers the tendency would be to accept for the time being the terms offered,

no matter how unsatisfactory they might be, rather than take a chance at finding other work.

The representatives of the employers, on the other hand, held that the basis of determination should be the prevailing rates for similar accommodations in the community. If \$3.50 a week was the least sum for which a woman could secure respectable lodgings, and the conference agreed that it was, then the employer who provided rooms for his employees should be allowed to deduct \$3.50 from the minimum wage. In the same way if \$1 a day, \$7 a week, was the least sum for which palatable and nutritious food could be obtained, and the conference was of the opinion that this was true, then the employer who furnished food to his employees should be allowed to deduct that sum from the minimum wage. In other words, the representatives of the employers held that if in the determination of the cash minimum wage a certain allowance was made for room and board, then that sum should be fixed as the charge which an employer who furnished his woman workers with these items could make.

Real difficulties were presented by the inequalities in food served employees in the different types of establishments and by the inadequacy of some of the rooming facilities provided. It was pointed out that three grades of food were served in the larger hotels, the rank and file of the employees getting the third or poorest grade. The women contended that this food was often unpalatable and even inedible, and they felt that an employer should not be allowed to charge the price of a wholesome meal for food which did not come up to standard. On the other hand, in the small restaurants, tea rooms, and cafeterias only one grade of food was served. In these establishments the employees probably ate more than one dollar's worth of food a day. Therefore a fixed price for a meal served employees would in some instances work a hardship on the employee and in other instances on the employer. Where could the line be drawn so as to secure a maximum of benefit with a minimum of hardship? Final agreement was reached on \$0.30 a meal, \$6.30 for 21 meals a week, and \$2 a week for rent. These figures represent a compromise between the cost to the employer and the value to the employee as measured by prices for which standard accommodations could be secured outside of the establishment.

The mercantile conference reporting in July, 1919, allowed \$4 a week for clothing. It was generally conceded that clothing prices had risen appreciably since that time and with little discussion the employees' estimate of \$4.50 was accepted. The clothing budget was as follows:

1 suit every two years.....	\$17.50
1 coat every two years.....	19.75
8 waists, at \$2.....	16.00
1 dress waist.....	7.00
1 wool dress every two years.....	12.50
1 wool skirt.....	10.00
2 summer skirts.....	5.00
1 dress-up dress every two years.....	15.00
3 hats—summer and winter work hats and dress hat every two years..	14.00
2 wash dresses, at \$8.....	16.00
4 pairs shoes, 2 pairs, at \$8, and 2 pairs, at \$4.....	24.00
3 pairs gloves—1 kid, at \$2.50, and 2 cotton, at \$1.05.....	4.60
12 pairs stockings, at 65 cents.....	7.80
2 corsets, at \$2.50.....	5.00
4 summer union suits, at \$1.25.....	5.00
3 winter union suits, at \$1.75.....	5.25
6 corset covers, at 80 cents.....	4.80
4 nightgowns, at \$1.50.....	6.00
2 white petticoats, at \$1.50.....	3.00
1 dark underskirt.....	3.60
2 dozen handkerchiefs, at 15 cents.....	3.60
8 aprons, at \$1.50.....	12.00
1 kimono.....	2.00
1 purse.....	1.50
1 umbrella every two years.....	1.50
1 pair rubbers.....	1.50
Repairs to clothing (suit, skirt, etc.).....	2.50
Repairing shoes.....	4.00
Neckwear—4 sets, at 50 cents.....	2.00
Miscellaneous.....	2.00
Total per year.....	234.40
Total per week.....	4.51

The two previous conferences had each allowed \$3.20 for sundries. The representatives of the employees asked for a material increase in this allowance, but 50 cents additional was all that was granted. This 50 cents was to cover increased laundry expenses and car fare rates.

#### Report of the Conference.

**T**HE report of the conference, dated February 3, 1920, is as follows:

To the Minimum Wage Board of the District of Columbia:

The conference on the hotel, restaurant, apartment house, club, and hospital industries having completed its consideration of and inquiry into the subject submitted to it by the board reports its findings and recommendations as follows:

1. The conference finds that the minimum wage for women workers in the occupations under inquiry should be \$16.50 per week, and that any lesser wage is inadequate to supply the necessary cost of living to women workers in such occupations and to maintain them in health and to protect their morals. The figures upon which this wage is based are: Room, \$2; board, \$6.30; clothing, \$4.50; sundries, \$3.70.



2. The conference recommends:

(a) That the wage to be paid to any woman worker in a hotel, restaurant, apartment house, club, or hospital shall be not less than \$16.50 per week.

(b) That where the employer furnishes room or board, or both, to his employees he may make a charge for room of not more than \$2 per week, for board at not more than the rate of \$0.30 per meal or \$6.30 for 21 meals per week.

This report has been unanimously accepted by the Minimum Wage Board. In accordance with the law a public hearing must be held at which any person in favor of or opposed to the recommendations may be heard. The hotel men's section of the Merchants and Manufacturers' Association has signified its intention of protesting against the rates. The representative of the restaurant owners in the conference has refused to join with the hotel men in such protest. With sentiment divided the hearing promises to be a lively one. If, when the hearing is over, the board is still in favor of the recommended rates it will embody them in the form of an order which will become effective 60 days from date. Approximately 3,000 women will come within the scope of such an order.

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## Minimum Wage Law of Massachusetts.

BY AN act of the legislature of 1919 (chap. 350) the Minimum Wage Commission of Massachusetts went out of existence on November 30 of that year. The act named creates a department of labor and industries into which are consolidated the various State boards and commissions interested in industrial matters.<sup>1</sup> There is to be a commissioner of labor and industries who is the administrative and executive head of the new department. Three associate commissioners take over the functions of the minimum wage commission, and are charged with the executive duties formerly devolving upon the commission.

The commission in its final report expresses the hope that the essential features of the minimum wage work will be continued intact, and that its identity and individuality will be maintained. It says: "The work is distinctly different from that of the other labor boards and commissions with which it is joined. It is concerned directly with a special group—the unskilled, unorganized women and child workers in the State. The wage boards through which it functions involve distinct problems requiring a certain specialization in their treatment."

The minimum wage commission was established in July, 1913. During the six years of its existence wage investigations have been

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<sup>1</sup> See pp. 209 to 213 of this issue of the REVIEW for an account of the organization of the new department.

conducted in 23 occupations, in 4 of which a second investigation has been made. In 16 of these, wage boards have been authorized, and in 14 minimum wage rates have been fixed. Inspections during the year showed substantially full compliance with the recommendations of the commission, and also indicate a considerable number of increases in wages paid.

Inspections covered 1,030 establishments, employing 24,815 women. Only 196 cases of violations, or less than 1 per cent of the entire number for whom records were secured, were found. Satisfactory adjustments were secured in nearly every case without recourse to legal action. The difficulty of determining with exactness the advances made on account of the decrees is recognized. However, it is believed that they have been largely beneficial, while in a number of cases employers have anticipated action by the commission by increasing rates of wages immediately following an investigation of their industry, without waiting for a wage board to make recommendations. Indeed, satisfaction is expressed over a changed attitude on the part of employers toward the minimum wage work. The hostility of past years seems largely to have disappeared, and many employers recognize that a minimum wage is to their interest as well as that of their employees, since it is a minimum and not a standard rate, and protects representative employers from unfair competition.

## COOPERATION.

### The Cooperative Movement in the United States.

By FLORENCE E. PARKER.

THE cooperative movement, or the Rochdale movement, as it is often called, is one of great social significance. It tends to substitute for the present system of private profit taking a condition of society under which every need of life, social and economic, will be supplied by the united effort of all. Though this aim is revolutionary, the method of attainment is gradual and peaceful. The movement is not political but economic. The cooperator as such takes no part in politics. One writer states that "the cooperator exercises his power chiefly through his economic vote, as a consumer."<sup>1</sup>

The immediate object of the movement is the reduction of the cost of living by a system of exchange, as nearly direct as possible, between producer and consumer, the middleman and his profits being eliminated. The cooperator may set about to accomplish this object either as a consumer or as a producer. As a consumer the medium through which he works is the cooperative buying club or the cooperative store; as a producer it is some such organization as a farmers' marketing association.

#### The Rochdale Principles.

CERTAIN features inaugurated by the Rochdale cooperators have been adopted by their successors as guiding principles and characterize the movement wherever it exists. The leaders in cooperative organization continually urge that all societies should rigidly adhere to them. One authority says that failure to conform to these principles "is to abandon the cooperative idea and to invite failure."<sup>2</sup>

The principles are as follows:

1. Unrestricted membership, with shares of low denomination which may be paid for in installments.
2. Limitation of the number of shares to be held by any one member, to prevent wide inequality in the financial status of members.
3. Democracy in government, and each member limited to one vote, irrespective of the number of shares held.
4. Sale of pure goods at prevailing market prices.
5. Cash sales to avoid the loss attendant upon extension of credit and to enable the society to make the best use of its capital.

<sup>1</sup> Albert Sonnichsen: *Consumers' Cooperation*. New York, Macmillan Co., 1919, p. 196.

<sup>2</sup> Emerson P. Harris: *Cooperation the Hope of the Consumer*. New York, Macmillan Co., 1918, p. 179.



6. Payment of not more than a legal rate of interest on share and loan capital, the remainder of the "profits" (the surplus over cost price plus expenses of management), after making provision for depreciation, reserve, and educational fund, to be returned as a dividend to members in proportion to their patronage.

### History of Cooperation in the United States.<sup>1</sup>

**STARTED** in Rochdale, England, in 1844 by 28 weavers as a means of relief from poverty, unemployment, adulterated food, and extortionate prices, the cooperative movement has remained a distinctly working-class movement, and as such has spread to every continent. The United States was one of the first countries to follow the lead of the Rochdale pioneers. Until recently, however, the cooperative movement has not been particularly successful here, though thousands of enterprises have been started which have had temporary success.

The cooperative spirit in the United States has manifested itself in various ways. Probably the first instance of cooperative purchase was the buying club established in Boston in 1844, out of which grew the powerful New England Protective Union. This organization flourished for a while, but internal quarrels disrupted it, and its place was taken by the American Protective Union. Through the latter, as many as 700 stores are said to have been established in New England.

During the early seventies the Patrons of Husbandry, a farmers' order, established a number of cooperative stores, some of which still exist.

The establishment of communistic colonies was another form taken by cooperative effort. This phase, beginning early in the first half of the century has continued, in sporadic instances, up to the present. Some of these colonies, such as the Amana community in Iowa, the Separatist community at Zoar, Ohio, and the various Shaker communities, were primarily religious. Others, such as the Anaheim and Kaweah cooperative colonies in California were economic in origin. Some of these communities are still in existence. The Oneida community in New York, which began as a communistic religious colony, still survives, but has taken on the character of a joint stock company.

Not all of the early ventures were strictly cooperative in principle and in many cases the cooperative idea was subordinated to some other economic or social theory which caused the failure of the cooperative scheme. This was true of the movement supported by the Knights of Labor about 1884, in which the cooperative feature was incidental to their political program, the failure of which destroyed the stores.

<sup>1</sup> The data on which this section is based were secured from *Consumers' Cooperation*, by Albert Sonnichsen, *Cooperation in New England*, by Prof. James Ford, and U. S. Bureau of Labor Bulletin No. 35.

In 1874 there was established a purely cooperative organization, the Sovereigns of Industry. Stores established by this organization spread all through the North Atlantic coast States. This society failed in 1879 through bad business management.

Toward the end of the century the movement in the United States seemed to have died out. Only a few isolated independent stores remained. Of recent years interest in all lines of cooperative activity, particularly in farmers' marketing organizations and cooperative buying associations, has gradually revived. The most notable examples of the former type of cooperation are found in such associations as the California Fruit Growers' Exchange and the various live-stock shippers' organizations. A detailed discussion of farmers' distributive organizations was given in the MONTHLY LABOR REVIEW for March, 1919 (pp.133-136). The present article will be confined to cooperative buying or consumers' associations.

There are now certain well-defined centers of consumers' cooperative associations. The Pacific coast has a vigorous movement, strongly backed by labor unions, centering about San Francisco and Seattle. Illinois is another center of cooperative activity. In this section the miners have been largely instrumental in making the stores a success. In the Dakotas, the Nonpartisan League has established a chain of stores as a part of its program. The North Central States have a thriving movement centering in the Cooperative Wholesale Society of America, in St. Paul, which combines both the producer and consumer phases of the movement. A good deal of organization work is being done in the vicinity of New York City. The Finns have a large number of stores, all strongly centralized, with wholesale centers at Superior, Wis., and Fitchburg, Mass.

#### Extent and Character of Cooperative Movement in the United States.

WHILE there seem to be no statistical data relative to the extent of the cooperative movement in the United States, it is estimated that there are about 3,000 consumers' societies, having a combined business of approximately \$200,000,000 a year.<sup>1</sup>

The Bureau of Labor Statistics has been making a tentative survey of the cooperative movement and now has data from about 85 consumers' cooperative societies. Though as yet the data are too scattered and incomplete and relate to too small a number of associations to be put into statistical form, they will serve to give a general idea of the character of the cooperative society. The survey includes associations dealing in one or several of the following lines: Groceries, meats, meat products, bakery goods, milk, dry goods, women's clothing, millinery, boots and shoes, students' school sup-

<sup>1</sup> Estimated by the National Cooperative Association, Chicago.

plies, feed, fuel, miners' supplies, grain, fertilizers, spraying materials, lumber, timber products, farm machinery, and hardware.

All except six of the societies reporting as to number of establishments operate only one establishment. Of these, four report that they operate a branch store in connection with a grocery or general mercantile business; one society which does a general mercantile business operates seven branch stores; a Finnish society in New England reports that it operates 12 grocery stores, 2 bakeries, 3 boarding places, and 4 milk stations.

#### Membership.

The membership of the societies which furnished information as to membership ranged from 35 to 1,700, the average being 427. Most of the societies reporting conform to the open-membership principle. Generally the only requirement—aside from the monetary one—is that the applicant be over 16, or over 18, years of age, or that he be indorsed by a member in good standing. One society makes a somewhat unusual restriction on membership. Its constitution provides that "members of commercial clubs, employers' organizations, manufacturers' associations, retailers' associations, and business men, private detectives, except should they be a member of some labor organization also," shall not be admitted to membership in the society.

Most societies charge a small membership fee ranging, among those reporting, from 25 cents to \$1. In one society this fee was \$5; two others charge \$10.

#### Number and Value of Shares.

The value of a share of stock ranges from \$5 to \$100, the greatest number reporting the former amount. The significance of this is altered somewhat by the fact that some societies require the purchase of more than one share of stock by each member. With this factor taken into account the capital investment required ranges from \$5 to \$300, the majority of societies requiring \$10. The average for all the societies reporting was \$41 per member. Of course, every factor which tends to increase the amount of money which must be advanced in order to secure membership limits the field from which the society may draw its members, since many persons, though interested in the project, might still be deterred by financial inability from joining. One society whose shares are \$100 each requires that each member hold three. To the average wage earner whom the cooperative movement should benefit this requirement acts as a very effective barrier. About one-fourth of the societies reporting stated that the shares may be paid for in installments.

The number of shares that may be held by one member range from 1 to 200, the greatest number of associations allowing each member



to own 5 shares. The maximum amount that may be invested by any one member ranges from \$10 to \$1,000. In the largest number of cases a member may invest \$100 in share capital. The number of shares per member is limited in some States by the cooperative law. Thus, in Illinois the law provides that no member may own more than five shares or \$500 worth of stock.

#### Democracy in Government.

Without exception, in the societies studied, the principle of "one member, one vote" is strictly adhered to. Voting by proxy is allowed in only one society. A number of associations allow a member unavoidably absent to vote by mail, provided he is informed as to the matter to be voted on. A great many allow the member's vote to be cast, in his absence, by a member of his family.

Since democracy in government is one of the chief principles of the cooperative society, it is important that as many members participate as possible, and cooperators lay stress on the importance of members' attendance at meetings. About one-third of the societies reporting levy a fine, ranging from 25 cents to \$1, for nonattendance, and one society provides that any member failing, for a whole year, to attend the meetings shall be expelled.

The affairs of each society are managed by a board of directors elected by and from the membership to serve, in the majority of cases, for one year. This board usually consists of five or seven members. In one case, where there are nine directors, the constitution provides that three shall be women. Another association provides that none of its directorships shall be filled by a "business man or profiteer."

#### Prices.

Of the associations which reported as to prices, all but three sell at prevailing prices. These three state that they sell at "reasonable rates," "operate on a small margin," or on as small a margin "as is consistent with safety."

#### Sales.

Though it is the policy of the stores reporting to sell only for cash, in practice members are allowed credit to the amount of from two-fifths to four-fifths of their paid-up capital stock. Three-fifths of the paid-up capital stock seems to be the usual amount of credit granted. Usually, in addition, credit is given to the full amount of the member's loan capital. One society, which allows credit up to four-fifths of stock, states that it does not recommend this as a safe course to pursue, although it has worked very well in their case. One association allows credit, amount unspecified, for six months; another allows it to the amount of \$40, and this must be paid by the tenth of the following month.

The average monthly sales of the societies reporting on this point range from \$2,359 in one small society which had at the time of reporting been in business less than a year to \$78,450 in a society having about 1,700 members, which has been established since 1890. The average sales of all the societies reporting amounted to \$13,315 per month. This average is probably too large to be representative of the typical small cooperative society, since the societies which reported on this point were, for the most part, societies with a large membership and some operated more than one store.

Rates of Interest, Provision for Reserve, etc., and Dividends on Purchases.

The rate of interest paid by the societies reporting ranged from nothing, in two cases, to 10, in one case. In only one instance, a Michigan society, was more than the legal rate of interest paid. In several of the societies, the first two or three shares of each member's stock are held as working capital and bear no interest, the legal rate being paid on all shares in excess of those numbers.

Practically every society provides for a reserve fund to meet unexpected losses. The amount annually set aside for this fund is based upon the surplus, and ranges from 1 to 50 per cent. In most of the societies the annual appropriation for reserve is 10 per cent or under. Many societies provide either that when the reserve reaches the sum of \$30,000, or when it amounts to 30 per cent of the capital stock, no further additions to the fund shall be made.

In the cooperative movement, emphasis is laid on the importance of educational and propaganda work, and many associations regularly appropriate a certain percentage of the surplus for this purpose. In the societies studied this percentage ranged from 2 to 50 per cent.

Cooperative societies generally sell to nonmembers as well as members, but they do not always include nonmembers in the return of dividends. Where dividends are returned on the purchases of nonmembers they are usually at one-half the rate received by members, though some of the societies state that they pay up to three-fourths of the members' rate. In some associations the nonmember's dividend is not paid to him but is applied on a share of stock so that in time he automatically becomes a member of the society and is entitled to the full rate of dividend.

Some societies also arrange with private stores for a discount on purchases made by their members.

#### Benefits of the Cooperative Society.

The cooperative stores probably have little, if any, effect in lowering prices in their community, since, as has been noted, most of them sell at prevailing market prices to avoid arousing the enmity of the private dealer. The practical effect of price reduction, however, is

obtained by means of dividends, which are declared quarterly or semiannually.

The dividend is the member's share of the "profits," that is, of the sum remaining after deduction from the surplus of the amounts to be set aside for education, reserve, and depreciation funds. The dividend is computed not upon the capital stock but upon the total sales, and is distributed in accordance with the amount purchased by each member. Thus the member whose purchases at the store have amounted to \$100 during the quarter would receive, on a 6 per cent dividend, \$6.

The dividends returned to members on purchases ranged from 3 to 10 per cent. One large society, mentioned above, states that it has never paid less than 8 per cent and has paid as high as 13 per cent. The average dividend for the stores reporting was a little over 7 per cent.

Only three of the stores reporting as to the amount of dividend deal exclusively in groceries. These reported dividend returns of 4, 6, and 9 per cent on purchases. In the investigation made by the Bureau of Labor Statistics in cooperation with the National War Labor Board of the cost of living in 92 industrial centers it was found that the average annual expenditure for food of 3,959 families with yearly incomes of \$1,200 and under \$1,500, amounted to \$515.55.<sup>1</sup> On such an expenditure the cooperator would receive as his yearly dividend \$20.62 from the store paying a 4 per cent dividend, \$30.33 from the one paying 6 per cent, and \$46.40 from the one paying 9 per cent. The expenditure for food of 2,730 families with yearly incomes of \$1,500 and under \$1,800 was found to be \$571.75.<sup>1</sup> On purchases to this amount the dividend received from the three stores would be \$22.87, \$34.30, and \$51.46.

It must be borne in mind, however, that probably in most cases members would not buy all of their food supplies from the cooperative store. The above dividends, therefore, are the maximum receivable, the amount actually received being determined by the proportion bought at the cooperative store.

The average dividend paid by the societies dealing in general merchandise ranged from 3 to 8 per cent, the average being 6 per cent. Assuming the term "general merchandise" to cover the items listed by the Bureau in its cost-of-living study as "food," "clothing," and "furniture and furnishings," the average expenditure for general merchandise of the industrial wage earners' families was found to be \$784 for those having an annual income of \$1,200 and under \$1,500 and \$907.44 for those having an income of \$1,500 and under \$1,800. At the rate of a 6 per cent return on this expenditure, assuming

<sup>1</sup> MONTHLY LABOR REVIEW, August, 1919, p. 118.



again that all purchases for merchandise were made at the society's store, the yearly dividend would amount to \$47.04 and \$54.45.

Besides this monetary benefit the cooperator receives other advantages through his membership in the society. Prof. Ford emphasizes<sup>1</sup> that the cooperative movement provides values not readily obtainable from other sources:

(1) It provides important practical education in business methods for adult wage earners. (2) It provides training for citizenship. Questions of broad policy are inevitably discussed in meetings of cooperative associations. This discussion develops knowledge, ability to understand and to handle men which renders the cooperator valuable in public service. (3) It discovers what Prof. Marshall calls "our greatest waste product," namely, the latent abilities of workingmen, and utilizes those latent abilities not only in the fields of business and citizenship, but throughout the entire range of social conduct. (4) It habituates men to altruistic modes of thought and of conduct. The motto "Each for all and all for each" finds daily expression in cooperative activities. The more a man buys from the cooperative shop the more he stabilizes the business and increases his profits and his neighbor's dividends. (5) It not only increases the income of individual members, but creates a collective capital which can be used on occasion to free the working classes from any form of exploitation.

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<sup>1</sup> Distributive cooperation, by James Ford. Address delivered at National Conference of Social Work, 1917, Pittsburgh, Pa.

## EMPLOYMENT AND UNEMPLOYMENT.

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### Employment in Selected Industries in January, 1920.

THE Bureau of Labor Statistics received and tabulated reports concerning the volume of employment in January, 1920, from representative establishments in 13 manufacturing industries. Comparing the figures of January, 1920, with those of identical establishments for January, 1919, it appears that in 10 industries there was an increase in the number of persons employed, while in 3 there was a decrease. The greatest increases—54.2 and 51 per cent—appear in men's ready-made clothing and woollen, respectively, and the largest decrease—24.9 per cent—is shown in car building and repairing.

Eleven of the 13 industries show an increase in the total amount of the pay roll for January, 1920, as compared with January, 1919, and 2 show a decrease. The most important percentage increases—149.5, 125.8, and 73—appear in men's ready-made clothing, woollen, and automobile manufacturing, respectively. A decrease of 21.5 per cent is found in car building and repairing.

The large increases over last year are due in part to the decline in the fall and winter of 1918-19 caused by the cancellation of Government contracts and uncertain industrial conditions following the signing of the armistice in November, 1918. In men's ready-made clothing in November, 1918, there was a falling off of 1.4 per cent in the number of employees and 4.6 per cent in the amount of the pay roll as compared with October, 1918. The comparison of December, 1918, with November, 1918, shows a decrease of 2.7 per cent in the number of employees and an increase of 5.8 per cent in earnings. In January, 1919, as compared with December, 1918, there was a decrease of 8 per cent in the number on the pay roll and a decrease of 3.7 per cent in the amount of the pay roll. In woollen for January, 1919, as compared with December, 1918, there was a falling off of 18.1 per cent in the number on the pay roll and 25.2 per cent in the amount of the pay roll.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN JANUARY, 1919,  
AND JANUARY, 1920.

Industry.	Estab- lish- ments report- ing for Janu- ary, both years.	Period of pay roll.	Number on pay roll in January—		Per cent of in- crease (+) or de- crease (-).	Amount of pay roll in January—		Per cent of in- crease (+) or de- crease (-).
			1919	1920		1919	1920	
Automobile manufacturing.	36	1 week..	78,126	107,559	+37.7	\$2,091,674	\$3,617,749	+ 73.0
Boots and shoes.	65	..do....	51,624	56,610	+ 9.7	1,110,203	1,395,794	+ 25.7
Car building and repairing..	55	½ month.	66,766	50,109	-24.9	3,887,252	3,050,049	- 21.5
Cigar manufacturing.	56	1 week..	18,273	17,492	- 4.3	291,278	365,467	+ 25.5
Men's ready-made clothing.	36	..do....	13,314	20,530	+54.2	267,892	668,517	+149.5
Cotton finishing.	17	..do....	12,762	15,868	+24.3	241,367	398,024	+ 64.9
Cotton manufacturing.	52	..do....	43,532	45,341	+ 4.2	709,333	945,075	+ 33.2
Hosiery and underwear.	65	..do....	30,709	34,182	+11.3	442,355	647,200	+ 46.3
Iron and steel.	97	½ month.	191,486	174,797	- 8.7	13,250,085	12,378,710	- 6.6
Leather manufacturing.	34	1 week..	15,449	18,025	+16.7	339,439	466,443	+ 37.4
Paper making.	50	..do....	27,588	28,734	+ 4.2	596,765	747,149	+25.2
Silk.	49	2 weeks.	17,787	21,099	+18.6	620,094	957,632	+ 53.0
Woolen.	49	1 week..	29,123	43,975	+51.0	507,700	1,146,242	+125.8

Comparative data for January, 1920, and December, 1919, appear in the following table. The figures show that in nine industries there was an increase in the number of persons on the pay roll in January as compared with December, and in four a decrease.

The largest increase in the number of people employed appears in iron and steel, 12.4 per cent. Decreases of 3.4 and 2.6 per cent are shown in cigar manufacturing and car building and repairing, respectively.

In comparing January, 1920, with December, 1919, nine industries show an increase in the amount of money paid to employees and four a decrease. The most important increases are 13.7 per cent in iron and steel and 12.4 per cent in automobile manufacturing. Cigar manufacturing and car building and repairing show respective percentage decreases of 7.8 and 6.4.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN DECEMBER,  
1919, AND JANUARY, 1920.

Industry.	Estab- lish- ments report- ing for Decem- ber and Janu- ary.	Period of pay roll.	Number on pay roll in—		Per cent of in- crease (+) or de- crease (-).	Amount of pay roll in—		Per cent of in- crease (+) or de- crease (-).
			Decem- ber, 1919.	Janu- ary, 1920.		Decem- ber, 1919.	Janu- ary, 1920.	
Automobile manufacturing.	37	1 week..	100,098	105,053	+ 5.0	\$3,161,276	\$3,553,941	+12.4
Boots and shoes.	59	..do....	51,492	52,123	+ 1.2	1,287,310	1,323,272	+ 2.8
Car building and repairing..	55	½ month.	51,443	50,109	- 2.6	3,258,785	3,050,049	- 6.4
Cigar manufacturing.	56	1 week..	18,288	17,663	- 3.4	399,345	368,363	- 7.8
Men's ready-made clothing.	44	..do....	17,704	17,981	+ 1.6	543,347	575,283	+ 5.9
Cotton finishing.	17	..do....	16,020	15,868	- .9	403,807	398,024	- 1.4
Cotton manufacturing.	52	..do....	43,772	43,506	- .6	895,684	910,103	+ 1.6
Hosiery and underwear.	61	..do....	32,012	32,097	+ .3	594,328	609,071	+ 2.5
Iron and steel.	99	½ month.	158,067	177,674	+12.4	11,099,157	12,615,643	+13.7
Leather manufacturing.	31	1 week..	16,926	17,238	+ 1.8	432,517	443,736	+ 2.6
Paper making.	50	..do....	28,458	28,734	+ 1.0	731,641	747,149	+ 2.1
Silk.	47	2 weeks.	20,067	20,178	+ .6	918,390	916,316	- .2
Woolen.	49	1 week..	45,553	47,407	+ 4.1	1,184,265	1,227,862	+ 3.7



In addition to the data presented in the above tables as to the number of employees on the pay roll 86 plants in the iron and steel industry reported 147,426 employees as actually working on the last full day of the pay period reported for January 1920, as against 156,327 for the reported pay-roll period in January, 1919, a decrease of 5.7 per cent. Figures given by 87 establishments in the iron and steel industry for January, 1920, and December, 1919, show that 147,893 employees were actually working on the last full day of the pay period reported for in January, 1920, as against 131,054 for the period in December, 1919, an increase of 12.8 per cent.

#### Changes in Wage Rates.

**D**URING the period December 15, 1919, to January 15, 1920, there were establishments in 11 of the 13 industries which reported increases in wage rates. Of the establishments reporting, many did not answer the inquiry relative to this item, but in such cases it is not likely that changes were made.

**Automobile manufacturing:** Twenty per cent of the employees in one establishment received an increase of 10 per cent, and 9.5 per cent of the men in another plant received an increase of 8.25 per cent. One concern granted a 4 per cent increase to 12½ per cent of their help. In one establishment 40.6 per cent of the employees received an increase of 2.48 per cent, while 5 per cent of the force in another shop were granted a wage increase of 2 per cent. Two establishments reported a few individual increases but made no further statement.

**Boots and shoes:** Ten per cent of the employees in one firm were granted a 12½ per cent increase. Three firms gave increases of 10 per cent affecting all of the force in two plants and 25 per cent of the men in the third establishment. An increase of 9¾ per cent, affecting 16¾ per cent of the employees, was reported by one plant. One establishment gave an 8 per cent increase to 10 per cent of their help and paid 20 per cent of the men a bonus of 7½ per cent on wages earned the preceding three months. A few small individual increases were reported by one concern but no further data were given.

**Cigar manufacturing:** One factory reported a 12 per cent increase but made no further statement. One establishment gave increases ranging from 5 to 10 per cent to 98 per cent of the employees. All of the men in one concern received an increase of 7½ per cent. An increase of about 2 per cent, affecting 4½ per cent of the force, was reported by one concern.

**Men's ready-made clothing:** Five establishments granted a 20 per cent increase affecting all of the employees in three firms, 90 per cent of the force in the third plant and 75 per cent of the men in the

fourth concern. An increase of 17 per cent, affecting  $82\frac{1}{2}$  per cent of the employees, was given by one establishment. All of the employees in one concern were given an increase of 15 per cent and the entire force of another establishment received increases ranging from 10 to 15 per cent. One firm reported an increase of 9.71 per cent but made no statement concerning the number of men affected.

Cotton finishing: An increase of  $12\frac{1}{2}$  per cent, affecting all of the employees, was reported by one establishment while another concern gave a 2 per cent increase to all of their force.

Cotton manufacturing: One establishment reported a 16 per cent increase but made no statement as to the number of men affected. All of the employees in three plants received a 10 per cent increase and the entire force in another plant was granted an increase of 9.1 per cent. One concern reported an increase of  $8\frac{1}{3}$  per cent, affecting 99 per cent of the help.

Hosiery and underwear: One establishment granted an increase of 15 per cent to all of the employees. Two firms gave a  $12\frac{1}{2}$  per cent increase to the entire force, and two other mills reported a  $12\frac{1}{2}$  per cent increase in wage rates but failed to give the proportion of the help affected. An increase of 11 per cent, affecting all of the men, was given by three concerns. All of the employees in one mill received an increase of about 10 per cent while six establishments granted 10 per cent increases, affecting all of the men in four plants, 90 per cent of the employees in the fifth mill, and 25 per cent of the force in the sixth establishment. One concern reported an increase in wage rates but made no further statement.

Iron and steel: One plant reported individual increases of about 10 per cent. Fifty per cent of the men in one establishment received increases ranging from 2 to 10 per cent, and all of the employees in another plant were granted a  $6\frac{1}{4}$  per cent increase. One concern reported an increase of about 6 per cent affecting 60 per cent of the force and a  $2\frac{1}{2}$  per cent increase to the other 40 per cent of the employees. The entire force in one mill was granted a 5 per cent increase. All of the men in one mill received an average wage increase of  $4\frac{1}{2}$  per cent. Two plants reported a  $2\frac{1}{2}$  per cent increase, affecting about 20 per cent of the employees in one concern and one-third of the force in the other. Forty-two per cent of the employees in one establishment received an increase, the puddle mill tonnage men receiving an increase of 2.2 per cent and the finishing mill tonnage men a 1.2 per cent increase. All of the force in one plant was granted an increase of 0.1428 per cent, and the wages of all the employees in another concern were increased 30 cents per day. One establishment reported an increase of 0.0233 per cent, affecting 75 per cent of the force, and 41 per cent of the men in another plant

received an increase of 0.019 per cent. One establishment reported an increase but made no further statement.

Leather manufacturing: Six per cent of the men in one establishment received a 15 per cent increase. One firm gave a 10 per cent increase to all of the employees while the entire force in another plant was granted an increase of  $7\frac{1}{2}$  per cent. A 5 per cent increase, affecting 50 per cent of the men, was reported by one concern. One establishment paid a bonus to all full-time workers.

Paper making: Eighty-five per cent of the employees in one establishment received an increase of  $12\frac{1}{2}$  per cent. Two firms gave a 10 per cent increase affecting the entire force and all of the men in another concern were given an increase of approximately 10 per cent.

Silk: One establishment reported an increase of about 20 per cent affecting about one-half of the employees. All of the force in one mill was given a  $12\frac{1}{2}$  per cent increase. Seven concerns granted an increase of 10 per cent, affecting all of the men in the first two plants, 90 per cent of the force in the third, 79 per cent in the fourth, 50 per cent in the fifth, 7 per cent in the sixth, and 3 per cent in the seventh. One concern gave a 5 per cent increase to 20 per cent of the employees, and another firm paid a 5 per cent bonus to the entire force. An increase was reported by one mill but no further information was given.

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## Employment and Unemployment in Great Britain in 1919.

A REVIEW of employment and unemployment conditions in Great Britain in 1919 is contained in the January issue of the British Labor Gazette. It is stated that in the early part of 1919 there was a large amount of transitional unemployment due to changing over from war to peace conditions, which was most severely felt by semiskilled and unskilled munition workers, large numbers of whom had been drawn from other industries, while many others—particularly women—have not previously been occupied in wage-earning employments. For most classes of skilled workers employment remained fairly good. While not an exact measure of the volume of unemployment, the out-of-work donation statistics give a fairly accurate index to conditions, showing the improvement which took place in the spring and summer. From the beginning of the year until early in March the number of those in receipt of out-of-work donations increased from 625,149 civilians and 53,554 ex-service men, to 753,982 civilians and 306,263 ex-service men. An improvement then set in among civilians, the number of policies



current decreasing to 137,637 on November 21, three days before the termination of the civilian donation. However, the number of ex-service men out of employment continued to increase until the maximum of 409,959 was reached on May 9. A steady decrease then set in continuing until September, when the number was 302,272. In October the number increased to 344,242 in November to 353,909, and on January 2, 1920 had reached 383,095.

The great amount of unemployment among women in the early months of the year may be illustrated by analyzing the figures for March 7, the date of maximum civilian unemployment. On that date the number of persons recorded as unemployed in connection with the donation scheme for civilians was 790,521, of whom 234,402 were men, 27,356 boys, 494,365 women, and 34,398 girls. The maximum of unemployment as regards ex-members of H. M. Forces was May 9, when the figures reached 409,959.

It is stated that the percentage of unemployment among members of trade-unions paying unemployment benefits was highest in December, being 3.2 per cent, the mean for the year being 2.4 per cent, and that this mean was the highest since 1914 when it was 3.3 per cent. It was, however, less than the average in prewar years—from 1905 to 1914. It is explained in this connection that skilled men permanently engaged in their trades form a relatively large proportion of the members of these trade-unions, and that the unemployment in the early part of 1919 was largely unemployment of semiskilled and unskilled workers who were discharged from industries which they had only entered for the purposes of the war. These figures, therefore, may not fully indicate the amount of unemployment occurring under such abnormal circumstances as prevailed in the first half of 1919. They also take no account of short time.

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## Employment and Unemployment Conditions in France.<sup>1</sup>

THE first industrial census taken of the invaded districts of France was made by the Office of Industrial Rehabilitation as of July 1, 1919. Questionnaires were sent to establishments which under normal conditions employed 20 or more persons each. From two departments only (Nord and Ardennes) were returns received which furnished sufficient data for the purposes of the investigation. Of these questionnaires, 1,045 and 201 were returned from the two departments named, and 276 from other departments. Of the establishments returning these questionnaires, 706, or 46.3 per cent, have resumed operations. The number of persons employed in

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<sup>1</sup> Bulletin du Ministère du Travail. Paris, June-July-August, 1919, pp. 273-278 and 310-313.

industrial labor in these establishments in 1914 was 397,140, and in 1919, 38,682, or 9.7 per cent. There were also 53,419 civilian workers and 13,276 war prisoners engaged in clearing away débris and in reconstruction work, making a total of 105,377 persons employed.

The following table shows the industrial situation as to employment, July 1, 1919, as compared with 1914:

NUMBER OF ESTABLISHMENTS EMPLOYING 20 OR MORE PERSONS, AND NUMBER OF CIVILIAN WORKERS EMPLOYED IN THEM, 1914 AND JULY 1, 1919.

Industry.	Establishments.			Number of civilian workers employed.				Per cent of employees in 1914 in industry on July 1, 1919.
	Number reporting.	Resuming operations.		In 1914.	July 1, 1919.			
		Number.	Per cent.		In reconstruction work.	In the industry.	Total.	
Mines and mineral pits.....	23	8	34.7	69,551	10,694	1,491	12,185	2.1
Quarries.....	16	13	81.2	896	271	226	497	25.2
Food preparations.....	118	39	33.0	12,191	1,667	1,265	2,932	10.3
Chemical.....	53	22	41.5	9,908	3,054	1,189	4,243	12.0
Rubber, paper, cardboard.....	14	6	42.9	13,419	2,577	1,608	4,185	11.9
Printing.....	33	21	63.6	3,744	164	1,208	1,372	32.3
Textiles.....	373	143	38.6	140,396	10,688	11,664	22,332	8.3
Clothing.....	36	21	58.3	4,758	108	1,099	1,237	23.1
Leather and hides.....	26	14	53.8	3,018	224	996	1,220	33.0
Woodworking.....	81	45	55.5	6,784	439	1,204	1,643	17.7
Metallurgy.....	33	16	48.4	25,530	4,003	948	4,951	3.7
Base metal working.....	415	192	46.2	70,153	10,776	9,763	20,539	13.9
Precious stones and fine metals.....	1	1	100.0	134	(2)	40	40	29.9
Stone dressing.....	26	20	76.9	1,735	66	512	578	29.5
Excavating and stone construction..	138	80	57.9	9,145	5,005	2,290	7,295	25.0
Stone and earthenware.....	136	65	29.4	25,678	3,673	3,179	6,852	12.3
Total.....	1,522	706	46.3	397,140	53,419	38,682	92,101	9.7

<sup>1</sup> Computed; not shown in original table taken from the report.

<sup>2</sup> Not shown in report.

Of the total civilian workers engaged in removing débris and in repair work 14,410 were foreign workmen, nearly all of whom were Belgians. These foreign workmen formed 15.6 per cent of the total number of workers employed in both reconstruction and industrial work. The number of wounded and invalided soldiers employed formed but a small portion, 1,036.

#### City of Paris.

BASED on a recent report on the operation of the municipal unemployment fund of Paris, published in the Bulletin of the French Ministry of Labor, unemployment in the city of Paris continues to decrease. The report states that the number of persons in receipt of benefits decreased from 67,370 during the period April 30 to May 15, 1919, to 29,629 in the two weeks ending August 19; that in the same periods, respectively, the amount of the unemployment benefits paid fell from 2,990,245 francs<sup>1</sup> to 1,324,363 francs. The amount of State aid granted the fund was 1,828,127

<sup>1</sup> Owing to fluctuations in the value of the franc, conversions in this article are not made into United States money. Normally, the par value of the franc is 19.3 cents.

francs in the former period, but it was reduced to 808,962 francs in the two-week period ending August 19.

Comparing the average number of persons in receipt of benefits in the period April 27 to August 16, 1918, with the period April 30 to August 19, 1919, the report shows that there were more than four times as many in receipt of unemployment benefits in 1919 as in 1918 and that the disbursements increased from 1,315,386 francs in 1918 to 14,379,095 francs in 1919, or about 993 per cent.

The following table presents comparative figures for corresponding periods of 1918 and 1919:

NUMBER OF UNEMPLOYED PERSONS RECEIVING BENEFITS, TOTAL DISBURSEMENTS AND STATE AID TO UNEMPLOYMENT BENEFIT FUNDS, IN SPECIFIED PERIODS OF 1918 AND 1919.

Item.	Apr. 27 to Aug. 16, 1918.	Apr. 30 to Aug. 19, 1919.	Per cent of in- crease.
Average number of unemployed receiving benefits.....	11,258	46,025	308.81
Men.....	1,872	27,186	1,352.24
Women.....	9,386	18,839	100.71
	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>
Total disbursements.....	1,315,386	14,379,095	993.14
State aid.....	433,374	8,777,749	1,925.44
Expense to city of Paris.....	882,012	5,601,346	535.06

During the first period the State paid 33 per cent of the total disbursements for unemployment grants. On January 15, 1919, the State assumed 75 per cent, which has considerably changed the ratio of distribution for the two periods.

The following table shows the extent of unemployment by industries for the two periods August 1 to 16, 1918, and August 4 to 19, 1919.

NUMBER OF PERSONS, BY INDUSTRY AND SEX, RECEIVING UNEMPLOYMENT BENEFITS, IN PARIS, AUGUST 1 TO 16, 1918, AND AUGUST 4 TO 19, 1919.

Industry.	Aug. 1 to 16, 1918.			Aug. 4 to 19, 1919.			Increase.		
	Males.	Fe- males.	Total.	Males.	Fe- males.	Total.	Males.	Fe- males.	Total.
Food preparations.....	73	105	178	1,084	640	1,724	1,011	535	1,546
Building and public works.....	261	93	354	2,014	107	2,121	1,753	14	1,767
Textiles and clothing.....	186	3,027	3,213	1,393	3,026	4,419	1,207	1	1,206
Art and jewelry.....	111	327	438	808	452	1,260	697	125	822
Printing.....	97	182	279	626	373	999	529	191	720
Woodworking and furniture manufac- turing.....	151	212	363	1,182	369	1,551	1,031	157	1,188
Chemicals and ceramics.....	35	147	182	529	237	766	494	90	584
Hides, leather, rubber.....	90	220	310	701	561	1,262	611	341	952
Mechanical and electrical.....	102	130	232	1,955	1,077	3,032	1,853	947	2,800
Mines and metallurgy.....	55	58	113	1,837	1,525	3,362	1,782	1,467	3,249
Commerce and banking.....	290	710	1,000	2,392	1,320	3,712	2,102	610	2,712
Liberal arts.....	194	580	774	734	578	1,312	540	2	538
Domestics, etc.....	298	3,011	3,309	1,901	1,989	3,890	1,603	1,022	581
Unclassified.....	4	1	5	117	101	218	113	100	213
Total.....	1,947	28,713	10,750	17,273	12,355	29,628	15,326	3,552	18,878

<sup>1</sup> Decrease.

<sup>2</sup> This total is taken from the original report. The total of the column is 8,803.



It is stated that the increase in 1919 was due to demobilization. It is shown that unemployment has been steadily growing less during the year.

The labor exchanges (*commissions paritaires*) have canceled the names of a large number of persons appearing on the roll as beneficiaries and have endeavored to find employment for them. Of the total receiving benefits—namely, 322,180—the number thus dropped by the commissions, in the period April 30 to August 19, 1919, was 63,424, and the number who secured employment was approximately one-half of the number dropped—36,093 or 56.9 per cent. The number of beneficiaries dropped from the roll by reason of their having secured employment was 11.2 per cent of the total number receiving benefits.

### Unemployment in Germany.

ACCORDING to the *Kölnische Zeitung*<sup>1</sup> the *Reichs-Arbeitsblatt* reports that unemployment increased in Germany during November, 1919. Reports received by the German Statistical Office from 31 trade-union federations, with a membership of 4,538,921, show that in that month 131,193 members, or 2.9 per cent, were unemployed. In October, 1919, 32 federations reported 110,626 (2.6 per cent) members as out of work, and in November, 1918, 31 federations reported 26,144 (1.8 per cent) members unemployed. The greatest increase of unemployment was reported by the building trades unions, 4.7 per cent against 1.9 per cent in October. The textile workers' federation, on the other hand, reported a decrease of unemployment from 7.4 per cent in October to 6.5 per cent in November, and the transport workers' federation a decrease from 2.6 to 1.1 per cent, respectively. The number of persons receiving unemployment grants on December 1, 1919, was 388,300 (291,501 males and 96,799 females). Statistics of the employment offices show that for every 100 vacant situations there were 173 male and 129 female applicants, as against 150 and 115 in October, 1919, and 74 and 101 in November, 1918.

### Conditions in the Baking Industry.

AN ARTICLE in *Soziale Praxis*<sup>2</sup> calls attention to the superabundance of apprentices in the German baking industry at the present time. In 28,745 baking establishments there are 19,625 journeymen and 21,831 apprentices, i. e., 111 of the latter to each 100 of the former, whereas in 1909 the respective proportion was 44 to 100. Employers are apt to encourage the taking on of apprentices, since they are able

<sup>1</sup> *Kölnische Zeitung*, Cologne, Dec. 29, 1919.

<sup>2</sup> *Soziale Praxis und Archiv für Volkswohlfahrt*, Berlin, Dec. 29, 1919.

to make a larger profit on their labor. The result has been a large increase of unemployment in the industry, which has caused many qualified bakers and confectioners to seek work in other industries. According to the *Reichs-Arbeitsblatt*, 12,543 bakers and confectioners were out of work in September last. This led to the workers' organizations insisting in the case of all wage scale agreements that clauses should be inserted limiting the number of apprentices. Employers who will not employ journeymen, but accept apprentices with a view to making increased profits are not to be allowed to take apprentices in future. The employers are, however, opposed to such clauses since they see in the apprentice system an opportunity of enriching themselves, for the employment of apprentices reduces their outlay for wages.

#### Unemployment in the Hotel and Restaurant Industry.

ACCORDING to *Soziale Praxis* (December 20, 1919), there is no industry in which unemployment is more rife than in the hotel and restaurant industry. Various measures are being adopted to combat this unsatisfactory state of affairs. In Berlin so-called compulsory holidays for hotel employees have been instituted, every employee who has occupied his present situation for six months being obliged to take a week's leave between July and December. In Nuremberg, with the assent of the conciliation board, it has been ordered that waiters and waitresses engaged during the war must be laid off for three months and replaced by unemployed and prisoners of war who have returned home. In Hamburg it has been ordered that every married waiter should receive 700 marks per month (basic wage and percentages), and every unmarried waiter 550 marks. In cases where the percentages exceed these amounts an extra waiter is to be employed for each 700 or 550 marks.

## WOMEN IN INDUSTRY.

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### Annual Report of Women's Service Section, United States Railroad Administration.

**A**N ACCOUNT was given in the MONTHLY LABOR REVIEW, March, 1919 (pp. 209-212), of the establishment and work of the Women's Service Section, having charge of the wages and working conditions of women employed by the railroads of the country. The annual report of the Director General of Railroads devotes a section to the work of this division during the past year.<sup>1</sup>

The work of the women's section has been particularly devoted to improving working conditions, especially in regard to health, comfort, and proper hours of work, and to insuring a fair application of the wage orders so that there should be no discrimination against the women.

The highest point in the employment of women was reached in October, 1918, when there were 101,785 employed by first-class roads, an increase of 66 per cent in the first nine months of 1918, and of 225 per cent from the beginning of the war. Although this number has decreased since that time, there are still many more employed than before the war. There are two causes which have operated to bring about the reduction in the number of women employees: First, the return of soldiers and sailors, who were reinstated according to seniority, and second, the general reduction in labor force on the railroads caused by the necessity for economy and which resulted in women being laid off in many cases because of their lower seniority rights. Recently, however, there has again been a slight increase in the number of women employed.

The eight-hour day has been put into effect in an increasing number of cases. Out of a total of 12,908 women covered by inspections of the women's service section, working in all classes of work, 90 per cent were working 48 hours or less in 1919, as against 70 per cent in 1918. Improvement in the number employed on night work, that is, employment on shifts beginning or ending between 6 p. m. and 6 a. m., is also noted, there being but 4.2 per cent of the total number working at night. These were mainly telephone switchboard operators in private exchanges and clerks. But 8 per cent of the total number scheduled, mainly car cleaners, were employed 7 days per week.

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<sup>1</sup> Annual report of Walker D. Hines, Director General of Railroads, 1919, Division of Labor. Washington, 1920, 84 pp.



Beginning last October, however, seven days' work is allowed only every other week.

Much progress also is reported in improving working conditions, especially in the provision of rest rooms which can be used at need as lunch rooms, dressing rooms, or for first-aid. The best results, it is said, have been achieved where a special supervisor of women employees has been installed and during the past year and a half, nine of the roads, most of them large systems, have engaged women supervisors.

Wage increases have been effective for women as well as men. The following table shows the rates of pay for clerical workers:

RATES OF PAY PER MONTH FOR WOMEN EMPLOYED AS CLERICAL WORKERS.

Item.	Employees whose rates of pay per month are—											Total.
	\$45 and under \$50	\$50 and under \$60	\$60 and under \$70	\$70 and under \$87.50	\$87.50 and under \$95	\$95 and under \$105	\$105 and under \$115	\$115 and under \$125	\$125 and under \$135	\$135 and over		
Number.....	43	287	137	223	5,317	977	1,953	731	241	185	30	10,124
Per cent.....	0.4	2.8	1.4	2.2	52.5	9.7	19.3	7.2	2.4	1.8	0.3	100

The monthly rates of pay for women in other classes of work are shown in the following table:

RATES OF PAY PER MONTH FOR WOMEN EMPLOYEES IN VARIOUS CLASSES OF RAILROAD WORK.

Occupation.	Number of employees whose rates of pay per month are—									
	\$39 and under \$40	\$40 and under \$45	\$45 and under \$50	\$50 and under \$60	\$60 and under \$70	\$70 and under \$80	\$80 and under \$90	\$90 and under \$100	\$100 and over.	Total.
Office girls and messengers.....		2	7	35	28	24	5			101
Telephone operators (switch- board).....					11	133	67	21	5	227
Matrons and supervisors.....				5	24	34	21	4	3	91
Cleaners and janitresses.....		12	2	13	18	112	31	15	6	209
Restaurant employees.....				6	17		1	1	11	36
Crossing watchwomen.....				4	27	12	3			46
Miscellaneous.....						4	5	7	8	24
Laundresses.....	27	4	28	76	57	20	24	1		237
Seamstresses in linen rooms.....			10	10	21	10	9	8	1	69
Total.....	27	18	47	149	193	349	166	57	34	1,040
Per cent.....	2.6	1.7	4.5	14.3	18.5	33.6	16.0	5.5	3.3	100

<sup>1</sup> At \$69.

The lowest rates of pay are found among the laundresses and seamstresses, whose rates correspond closely with commercial rates. In general, however, railroad work has been very popular with women because of the prevailingly high wages as compared with pay in other positions. The standardization of rates has been carried to such an

extent that the "rate is put on the position and not on the person," with the result that the women have been put to a real test of capacity. That they have not always measured up to the standard, it is stated, is because during the war emergency there was not time to make careful selection and many had to be taken in with insufficient training.

In regard to the future possibilities of advancement toward the more responsible positions in the railroad industry, the writer of the report says:

Testimony from their superiors indicates that women will undoubtedly progress further in all forms of work. While in some offices there is hesitation in encouraging them to advance into the more responsible positions, in other offices there is distinct effort to put no obstacle in their path, in fact they are being urged to bid on the higher positions. While some officials are still testing out the capacities of their women employees, others are emphasizing the need of training as the only requisite for further advancement.

## INDUSTRIAL ACCIDENTS.

### Accidents on Steam Railroads in the United States in 1918.<sup>1</sup>

STATISTICS of accidents on steam railroads in the United States in 1918 are presented by the Interstate Commerce Commission in its Accident Bulletin No. 70, recently issued. The commission's rules governing monthly reports of railway accidents divide accidents into three primary groups, namely: Train accidents, train-service accidents, and nontrain accidents. The commission defines train accidents as those arising in connection with the operation of trains, locomotives, or cars in road, yard, or work service, resulting in damage to equipment or other railway property.

Train-service accidents are defined as those, incidental to the operation of trains, locomotives, or cars, which result in casualties to persons but not in damage to equipment or other railway property. They include casualties due to coupling or uncoupling cars or car connections; to getting on or off, falling from, being struck by, or doing work about trains, locomotives, or cars not in shops or engine houses; to coming in contact, while on or getting on or off moving cars or locomotives, with any fixed structure above or at the side of track; and other like accidents not causing damage to the train itself or to other railway property.

Nontrain accidents include those occurring in and around shops, on boats and wharves, at stations, freight houses, engine houses, coaling stations, water stations, tracks, etc.; also those occurring in connection with construction or with repair, painting, or other maintenance work on buildings and other structures, and with the construction and maintenance of equipment, except such running repairs as may be made by trainmen en route. They do not include accidents occurring directly in connection with the operation of trains, locomotives, and cars, on rails.

In reports of injuries to persons the commission prescribes the following distinctions:

1. Any person killed in an accident at the time of its occurrence, or so severely injured as to die within 24 hours thereafter, should be reported as "killed."

<sup>1</sup> United States. Interstate Commerce Commission. Bureau of Statistics. Collisions, derailments, and other accidents resulting in injury to persons, equipment, or roadbed, arising from the operation of railways used in interstate commerce. October, November, and December and year 1918. Washington, 1920. 64 pp. Accident Bulletin No. 70.



2. With regard to injuries not resulting in death within 24 hours after the occurrence of an accident, the following rules are to be observed: (a) Employees incapacitated from performing their ordinary duties for more than three days, in the aggregate, during the 10 days immediately following the accident, are to be reported as "injured;" those incapacitated for only three days or less are not to be reported; (b) persons other than employees are to be reported as "injured" if the injury is sufficient, in the opinion of the officer making the report, to incapacitate the injured person for a period of more than one day from following his customary vocation.

The rules further provide that only accidents arising from the operation of a railway which cause either the death or the injury of a person as limited above or cause damage to railway property in excess of \$150 (including cost of clearing wreck) are reportable.

In the interest of uniformity, it is unfortunate that the rules noted above do not conform to those laid down by the committee on insurance and compensation insurance cost of the International Association of Industrial Accident Boards and Commissions,<sup>1</sup> which prescribe certain standard definitions applicable to the reporting of industrial accidents. For example, any person who dies as the result of injuries should be reported as killed even though death occurred after an interval of 24 hours from the time of the accident. Also, the committee prescribes that all accidents and injuries arising out of the employment and resulting in death, permanent disability, or in the loss of time other than the remainder of the day, shift, or turn on which the injury was incurred, should be reported. In the definition above it will be noted that employees incapacitated three days or less are not to be reported. Section (b) in the definitions of the Interstate Commerce Commission is very indefinite, and increases the confusion by establishing a different standard for injuries to employees and to other persons.

The following table is a summary of the accidents reported for the calendar year 1918:

CASUALTIES TO PERSONS ON STEAM ROADS IN THE UNITED STATES FOR THE YEAR ENDED DECEMBER 31, 1918.

Class.	Passengers and persons carried under contract.		Employees, including those not on duty.		Other persons (trespassers and nontrespassers).		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Train accidents.....	286	4,655	554	4,251	156	499	996	9,405
Train-service accidents.....	233	3,427	2,448	43,403	5,020	7,909	7,701	54,739
Nontrain accidents.....			491	108,457	98	1,974	589	110,431
Total.....	519	8,082	3,493	156,211	5,274	10,382	9,286	174,575

<sup>1</sup> See MONTHLY REVIEW for October, 1917, for report of this committee.

## INDUSTRIAL HYGIENE AND MEDICINE.

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### Health Hazards in Certain Industries of New York State.

#### Industries of Niagara Falls.

**H**EALTH hazards in the industries of Niagara Falls is the title given to the description by Paul M. Holmes, in a recent number of Public Health Reports,<sup>1</sup> of the results of an investigation conducted by the United States Public Health Service. The investigation was brought about by a letter from the secretary of the employers' association of Niagara Falls to the Commissioner of Labor Statistics, United States Department of Labor, dated June 27, 1918, asking permission of the Federal Government to introduce women into "shift work," which, as it involved working between the hours of 10 p. m. and 6 a. m., was prohibited by the New York State law. The request was referred by the Commissioner of Labor Statistics to the newly created Woman in Industry Service of the Department of Labor, and the Service decided to associate with it in the work other Federal agencies. A committee on hazardous occupations was formed, with a membership representing Federal agencies concerned with women in industry and with the health of the civilian population, federal departments having a direct or indirect interest in contracts in the chemical industries, and the New York State Department of Labor. This committee decided that a field investigation was necessary and appointed a subcommittee which supervised the field work and met at frequent intervals with a consultant staff, which was composed of Dr. Alice Hamilton, of the Bureau of Labor Statistics, Prof. C. E. A. Winslow, Dr. David Edsall, and Dr. W. Gilman Thompson, United States Public Health Service. The field staff was detailed by the Public Health Service to Niagara Falls to study and report upon (1) the hygiene and sanitation in the plants, making recommendations for correcting faulty conditions; and (2) the extent to which women might be employed if war conditions should necessitate their going into the plants in increasing numbers.

This report is limited to summarizing the field workers' findings on the hygiene and sanitation in the individual plants, the answers to the question raised as to the employment of women in the industries

<sup>1</sup> Health hazards in the industries of Niagara Falls, N. Y., by Paul M. Holmes. In Public Health Reports, issued by the United States Public Health Service, Washington, January 2, 1920. Pp. 1-20.

having been dealt with in a report of the Woman in Industry Service, entitled "Proposed employment of women during the war in industries of Niagara Falls."<sup>1</sup>

The inquiry conducted by the field force extended from August 10 to September 10, 1918. The detailed written reports covered the following points for each department and process of each plant: The nature and construction of the buildings; the ventilation, humidity, dust, fumes, gases, illumination, infection hazards, specific poisons, extremes of heat or cold, noises, and odors; the personal service facilities, such as toilet, washroom, locker, eating, drinking, and rest-room accommodations; the medical and surgical care of employees, including physical examinations and first-aid practice; hours of work, fatigue, absenteeism, and labor turnover; transportation facilities to and from work; and the educational measures used to prevent occupational ailments among workers. It is explained that the individual plant reports, covering the above points and containing detailed and specific recommendations for removing health hazards, were sent to the respective plant executives.

The investigation covered the 21 plants represented in the employers' association. With the exception of a few plants, this number includes all the industrial establishments in Niagara Falls. The following table shows the number of employees in these plants, which are grouped by products manufactured:

NUMBER OF EMPLOYEES IN 21 INDUSTRIAL PLANTS OF NIAGARA FALLS, GROUPED BY PRODUCTS MANUFACTURED.

Products manufactured.	Number of plants.	Number of employees.		
		Men.	Women.	Total.
Abrasives.....	3	1,734	490	2,224
Chemicals and gases.....	8	2,242	8	2,250
Electrodes and carbon.....	3	1,230	19	1,249
Metals and alloys.....	4	2,667	33	2,700
Miscellaneous.....	3	650	132	782
<b>Total.....</b>	<b>21</b>	<b>8,523</b>	<b>682</b>	<b>9,205</b>

#### Summary of Hazards Encountered.

The report contains a summary of the study of each of the five groups. In the abrasive industries the chief hazard is dust and this hazard, in the opinion of the writer, was "by far the most serious of any of the industrial health hazards in Niagara Falls." The three plants investigated cover the entire industry in Niagara Falls. Two manufacture crude abrasive material, which is shipped to other places to be made into commercial articles; the third makes

<sup>1</sup> This report was reviewed in an article published in the MONTHLY LABOR REVIEW for June, 1919, pp. 231-246.



both the crude material and the finished product. It was found that all employees are exposed to dust in varying amounts; not even the office force escapes. Tables are given showing nationalities of the workers of these three plants and the dust content of air in a lathe room, in a shaving room, in the grinding room, and in the plant offices and laboratories. Characteristics of the abrasive dust are that the particles are very hard, being second only to the diamond in this quality; and that they are insoluble in ordinary acids or fluids, and are from 95 to 100 per cent inorganic material. The particles are exceedingly jagged and sharp, according to photomicrographs of samples. This dust is very injurious to the lungs, as when once inhaled it is never removed. One to five years are required for the effects of it to develop. The main reason assigned by the report for workers not showing marked ill effects from this dust is that the labor turnover was so large that hardly any workers in the very dusty processes remained long enough to acquire serious damage to their lungs.

In the group of plants manufacturing chemicals and gases (90 per cent of their products being for war purposes), fumes and gases—particularly chlorine gas, hydrogen gas, and caustic fumes, nitrous oxide and benzol fumes—dusts, and caustic burns are the chief hazards, but on the whole the conditions regarding protection from these were comparatively good and were being improved.

In the manufacture of electrodes and carbon compounds a dust, "in no way comparable, as far as detrimental effects to the respiratory system are concerned, to the abrasive dusts" mentioned in connection with the abrasive industries, and heat from the furnaces, are the most objectionable conditions.

In the plants manufacturing metals and alloys the hazards are excessive heat, furnace gases, and dusts. "In none of the plants in the other groups are such large numbers of workers exposed to high temperatures as in this electrothermal industry." In no instance was any provision made to reduce the heat by water screens, heat chains, fans, or other devices. Carbon monoxide and carbon dioxide were hazards in two plants, and phosgene was not adequately removed in one plant.

In the miscellaneous group the hazards were chiefly lead and brass poisoning and sulphuric acid fumes.

Only 1 plant employed a full-time physician; 2 plants employed one physician each on part time; 18 called a physician in case of accident, sickness, or any emergency that the first-aid agent could not handle. Physical examinations were made in three plants, but not according to any set plan. Employees in the dusty processes of one abrasive plant were examined physically every three months by two

first-aid men, neither of whom was a physician. These examinations were supervised by the doctor. In no instances were employees examined before employment, and, with the one exception mentioned, none at regular intervals after employment.

The general average of labor turnover per month for the five-month period preceding the survey was found to be 25 per cent in the abrasive industry, 24 per cent in chemicals, 58 per cent in the electrical industry (1 plant for four weeks), 40 per cent in metals and alloys, and 53 per cent in one plant classed as miscellaneous.

It is an interesting and significant fact that one plant in the group manufacturing chemicals, having a grading of "good" with regard to hygienic conditions in the plant and excellent personal service facilities, had the lowest labor turnover—approximately 12 to 15 per cent per month—while another plant in the same group graded as "poor" had the highest turnover, or 33 per cent per month.

The prevailing hours of work were found to be 10 in the abrasive industry (75 per cent of the employees); 9 in chemical plants (60 per cent of the employees); 9 and 10 in the electrode plants (52 per cent of the employees); 8 and 12 hour shifts in the metals and alloys group (60 per cent of the employees); and 9 and 10 hours per day in the miscellaneous group (85 per cent of the employees).

#### Results of the Survey and Recommendations.

In April, 1919, two officers of the Public Health Service were detailed to Niagara Falls to see what action had been taken concerning the recommendations for improvement of plant hygiene and sanitation which had been made several months before to each plant executive. They found that a number of the recommendations had been put into effect, including the following: In abrasive plants, marked changes and extensions in the dust-collecting system; in the carbon and electrode plants, dust-collecting apparatus and drinking fountains; and in the other plants, varying improvements.

The following excerpt from the report summarizes the recommendations suggested by the survey:

In view of the great number and the seriousness of the health hazards in the industries of Niagara Falls, it is imperative that permanent and full-time supervision of the physical condition of the workers and work places be instituted. This, in the opinion of the writer, can be best accomplished by an industrial hygiene unit, located in Niagara Falls.

The following is a tentative outline of the organization and functions of such a unit:

At the head of the unit is the advisory board consisting of two representatives each from the employers, the employees, the medical society, and the chamber of commerce, together with the local health commissioner and the local factory inspectors. As executive head and directly under the advisory board comes the director, a physician, preferably trained or experienced in industrial hygiene, and emphatically of executive ability. The director's force should consist of one physician, two industrial nurses, one industrial hygienist (nonmedical), and one mechanical engineer.

The functions of the organization may be briefly set forth as follows:

1. To make physical examinations of the workers engaged in the hazardous occupations;
2. To make plant inspection, to carry on research work, and to make specific recommendations for removing hazards;
3. To work cooperatively with the hospitals; to have charge of the occupational disease clinic;
4. To carry on educational work for the prevention of occupational diseases; and
5. To cooperate in work with the United States Public Health Service, the New York Department of Labor, the New York Department of Health, the local department of health, the local medical staff, employment departments, the local medical societies, etc.

To meet the expenses of a unit of this kind it is suggested that the most satisfactory plan would be to have it financed on a pro rata basis by the manufacturers of Niagara Falls. The size of the unit could be definitely fixed and it is recommended that the members of the organization should be selected for permanent and full-time duty. Most of the Niagara Falls plants are too small to consider the employment of a full-time physician, and, in some instances, even a nurse, declares the report.

A medical organization with engineering personnel that will direct physical examinations of employees to note physical defects, analyze jobs, and place workers where they are best fitted to do a full day's work without injury to themselves, study the occupational hazards, give care to those injured or made ill by such hazards, and adopt engineering plans for their elimination, will find the monetary outlay insignificant as compared with the reduced cost in production and the increased output.

### The Chemical Industry.

**A**N ACCOUNT of the health hazards of the chemical industry in New York State, with recommendations for remedying the various conditions which have been found to be dangerous to employees and employers alike, are set forth in a bulletin<sup>1</sup> recently issued by the New York Industrial Commission. A brief historical survey of the industry is given, and reference is made to the fact that 89 per cent of all the electrochemical products made in the United States are manufactured along the banks of the Niagara River, where power from the Niagara Falls is available. The chemical industry, however, is carried on quite extensively in other parts of the State. The products of this industry "are so vast and numerous and involve so many processes that it would be an impossibility in this bulletin to point out and describe all operations in which risks occur, it being the intention to show some of the most commonly occurring accidents for which remedies to prevent their occurrence may be applied." It is suggested that in some of the

<sup>1</sup> Health hazards of the chemical industry, New York Industrial Commission Special Bulletin No. 96. Albany, November, 1919, 69 pp. Illustrated.



plants the average workman knows little or nothing of the nature or effect of the substances which he constantly handles, "this ignorance being fostered by some manufacturers for the purpose of protecting their secrets from their competitors or keeping the men at work in positions which they would refuse to hold if they realized the dangers of their occupations. Many of the materials are referred to only as 'dope,' 'stuff,' 'liquor,' or by initials which have no relation to the name or real composition of the material."

The report notes first the danger arising from the use of artificial lights, particularly open gas lights, although electric lights also cause explosions under certain conditions.

Heating constitutes another hazard, some factories being found in which salamander stoves are used without any means being provided to convey to the outer air the products of combustion. In a majority of cases, however, steam is used as the heating medium and here the danger lies in the possibility of volatile and inflammable material coming into contact with the heated pipes. To avoid this the use of screens is suggested.

In the course of the survey made by the industrial commission it was found that many cases of occupational poisoning were definitely traceable to the lack of adequate ventilation of factory work-rooms, the employees being compelled constantly to inhale deleterious materials arising from machines or mixing and packing processes. It is regarded as most important that a proper system of ventilation be provided to eliminate health and fire hazards by removing dust, gases, vapors, and fumes arising in the various processes used in the particular industry.

It was pointed out that workers in chemical factories are subjected to the danger of accidents from the same general causes as workmen in other classes of manufacture, but in addition they are subject to the danger of burns from acids or molten metal, the corrosive effect on the body tissues of caustic alkalies, alkaline earths, and chromium salts, and the poisonous effects of the inhalation of certain dusts, gases, fumes, and vapors. The breaking up, by means of sledge hammers, of hard, heavy, or tenacious material presents a serious eye hazard. There is also danger to the eye where caustic soda, metallic sodium, sodium peroxide, oxide of lime, ammonia, and chlorinated lime are handled or used. Dermatitis, especially of the hands and arms, is mentioned as a common malady among the employees in color works. Here also droppings from trays on which the workers carry material become dried and are soon reduced to a powder, thus constituting a serious dust hazard.

Toxic Effect of TNT Due to Inhalation of Fumes.

The bulletin states that one important fact brought out by the investigation is the repudiation of the statement made by many writers both in America and England that the toxic effects of TNT are due solely to absorption of the finished product through the skin or to the inhalation of the material in dust form. It was found that the majority of cases of illness from this substance was due to inhalation of the fumes generated through the nitration of the toluol, the fumes of the first nitration (mononitrotoluol) apparently being the most dangerous.

The report gives a brief statistical summary of 7,139 accidents in three factories employing 3,607 workers. Of the total injuries 1,245, or 17.4 per cent, were eye injuries, and 1,081, or 15.1 per cent, were caused by burns. About 36 per cent of the injuries are classed as lacerations.

Brief attention is given to the hazard caused by handling carboys. The fire hazard is an important one in chemical industries. Chemical reaction—changes which take place when certain substances are brought together—furnishes a long list of materials which may produce fire. Friction, shock, static sparks, and the carrying of matches may be the causes of fire. The report gives a list of materials which should not be stored together indiscriminately lest a fire result.

Reference is made to unsafe practices—carelessness on the part of employees. This applies to any industry, “but in the manufacture of chemicals the workers are exposed not alone to the hazards met with in ordinary manufacturing lines, but to the additional ones created by the handling of acids, poisonous materials, and hot liquids, and here above all other places short cuts and the game of chance (the unsafe way) usually fail.”

The report concludes with nearly four pages devoted to 33 recommendations for remedying the hazards to which chemical workers are exposed. Generally speaking these recommendations pertain to the installation of safety valves on devices in which pressure is carried, and of a lighting system of such a type as to prevent ignition of any gas, vapor, or dust which is present or may be generated or produced; prohibition of practice of lowering electric light globes into tanks, etc., in which vapors, fumes, gases or dust are present; prohibition of the use of salamander stoves unless adequate means is provided for conveying the products of combustion out of the factory; installation of radiators or steam pipes used for artificial heating purposes so that a space of not less than 2 inches shall be left between the wall and the radiator or steam pipe; the wearing of suitable goggles by all employees engaged in breaking, chipping, crushing, or grinding hard or tenacious material, and the wearing of

masks or goggles when acids, alkalies, or dangerous or poisonous chemicals are used; the provision of drowning tanks containing plain water, or a solution of bicarbonate of soda in all places where acids are handled or used; the provision of shower baths in the ratio of one for every 20 employees where substances which have an irritating or corrosive effect on the skin are made, handled, or used; the tagging of all valves; provision of powder shoes or shoes with rubber soles, and of wooden shovels and sieves, in all factories manufacturing or handling explosives; prohibition of the carrying of matches, etc., into any factory where explosives, oxidizing agents, or inflammable gases or liquors are made or handled. The recommendations further provide that all employees shall be made acquainted with the nature of the materials with which they work; that explosives or substances having powerful oxidizing qualities or substances in which chemical combination may generate heat, flame, or gas, shall not be stored in rooms or closets in such manner that they may fall or become combined and create a fire or explosion; that suitable protection from the glare of the arc shall be provided for those required to look into furnaces in the electro-chemical industry; the prohibition of fires or furnaces, except under certain restrictions, within the same building with inflammable liquids; the installation of suitable and effective sprinkler systems in all plants engaged in the manufacture of TNT or certain other explosives; the maintenance of suitable and approved first-aid kits; the prohibition of smoking in any building, or on any premises connected therewith, in which explosives or inflammable liquids or gases are manufactured, handled, used, or stored.

The report contains a brief bibliography, though not complete, of works consulted in connection with the investigation.



## WORKMEN'S COMPENSATION.

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### Investigation of Oregon Industrial Accident Commission.

THE interference by industrial accident commissions with the business of damage-suit lawyers continues to bear fruit in complaints against accident funds and investigations of them. The latest report to come to hand is one on the industrial accident commission of Oregon. It appears that an attorney had gone to the widow of a workman killed by accident and secured from her a contract based on a considerable percentage of the compensation award to be sought from the accident commission. When this came to the knowledge of the commission it took pains to see that the payment should reach the beneficiary and not the attorney, which was in accordance with the intention of the legislature in enacting the law. The attorney thereupon set about finding causes of complaint and publishing charges against the commission. This, with perhaps other incidents, led to the appointment of a committee representing employers, employees, and the public to make an investigation of the affairs of the commission.

The report of this committee, bearing date of January 10, 1920, describes the efforts made by it to run down all complaints and charges in an effort to determine their merits. The active aid and assistance of the commission was rendered freely. It was found that there were some technical violations of the law, not going to the merits of its administration, but really attaining more satisfactorily the desired ends. The case that furnished the largest amount of criticism was given special attention. It was found to be quite difficult from a legal standpoint, and it was concluded that "the commission used its best judgment at the time, and acted with proper intent, and that no serious criticism is justified." Quite the same conclusion was reached in other cases which were given considerable newspaper notoriety, and the recommendation concerning them was that further effort be made to ascertain the final results of the injuries with a view to a possible reopening of the cases.

Although wide notice was given of the purpose of the committee to consider all complaints, "less than a dozen requests all told have been made by those who wanted to appear before it with either complaints or suggestions." The attorney most active in presenting complaints submitted "some specific and a good many general

charges," but upon detailed investigation so many of these were found to be "without substantial foundation that the committee was inclined to attach very little importance to either the complaints or the suggestions."

Recommendations were made for an improved accounting system and a closer following up of accounts. However, the funds are reported as in a healthy condition, with reasonable surplus. Means of securing early payments to injured men were also recommended, as well as legislative action looking toward higher compensation awards. The commission was found not to be guilty of any misconduct, and the charges against it were in the main declared to be groundless. Suggestions for educational work to make the provisions of the law better understood, for some improvement in administrative methods, and for a periodical review of the administration of the fund by an independent commission, which should hear complaints and make recommendations for improvements, conclude the committee's report.

The fund showed assets amounting to \$2,878,484 on July 1, 1919, and premium receipts from employers up to December 31 of \$1,271,564. Employees contributed \$96,194. Oregon is the only State in which employees contribute to the regular compensation funds, the rate being 1 cent for each day worked. Interest, a State appropriation of \$207,428, and some other items bring the total assets and receipts for the half-year up to \$4,545,248. From this were paid benefits amounting to \$504,551, medical aid, \$201,460, and funeral expenses, \$8,700. Administrative expense during the six months amounted to \$91,780.

On December 31 the ledger assets were \$3,858,542, with a net surplus of \$668,808, a gain of \$426,996 in surplus during the six months.

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## New Chairman of California Industrial Accident Commission.

**A**T A meeting of the California Industrial Accident Commission, held on January 24, 1920, Will J. French, second member of the commission, was elected chairman to succeed A. J. Pillsbury, who retired from that position following an agreement that the chairmanship should rotate. Mr. Pillsbury remains a member of the commission. These gentlemen have been associated in connection with the administration of the Workmen's Compensation, Insurance, and Safety Act of California since the date the act became effective on September 1, 1911, and in assuming the duties of the office the new chairman paid high tribute to the faithful services rendered by Mr. Pillsbury.

## Comparison of Canadian Workmen's Compensation Laws.<sup>1</sup>

By CARL HOOKSTADT.

**W**ITH the single exception of Prince Edward Island, all of the Provinces of Canada, including the Dominion Government, have enacted workmen's compensation legislation. The law of Saskatchewan, however, although designated in its title as a workmen's compensation law, is merely an employer's liability act, and is therefore not included in the following discussion. The Dominion act provides that if a Federal employee (Government railroads excepted) sustains an injury he shall receive the same compensation as any other person would under similar circumstances receive under the law of the Province in which the accident occurred. Administration of the Dominion act is placed in the hands of the provincial boards, and any compensation awarded may be paid by the Dominion Minister of Finance.

Chronologically, Canadian legislation practically parallels that of the United States. The first law was enacted by British Columbia in 1902, followed by Alberta in 1908, Quebec in 1909, and Manitoba and Nova Scotia in 1910.<sup>2</sup> These early laws were patterned after the British act and were really modified employers' liability laws. No administrative commissions were provided, and usually suits for damages were permitted. A radical departure from the British type of law, however, took place in 1914, when Ontario enacted the first of the collective-liability compensation acts prevailing in most of the Provinces at the present time. These laws were patterned upon the mutual liability idea of the German workmen's compensation system and upon the exclusive State fund plan of the Washington act. Nova Scotia enacted a similar law in 1915, followed by British Columbia in 1916 and by Alberta and New Brunswick in 1918.

### Canadian and American Laws Compared.

**A**N ANALYSIS of the Canadian laws shows a number of striking characteristics and of deviations from the American type of compensation act. Some of the more important of these are the following:

1. In Canada there is a remarkable uniformity among the several compensation laws. This uniformity applies to the scope of the acts, benefits, injuries covered, administration, and procedure. In

<sup>1</sup> Section of a forthcoming bulletin on Comparison of workmen's compensation laws in the United States and Canada. This comparison includes 1919 legislation.

<sup>2</sup> In the United States the Federal compensation act was passed in 1908, while Montana enacted a compensation law in 1909 and New York in 1910, though these early State laws were later declared unconstitutional.



the United States compensation acts are distinguished more for their dissimilarity than for their uniformity.

2. In Canada all of the laws are compulsory upon the employers coming within the scope of the act. In the United States only 13 are compulsory while 32 are elective.

3. In Canada the scope of the law in each Province (Yukon excepted) is limited to enumerated hazardous employments. There is some diversity in the number of such employments, but the principal hazardous industries are covered, including manufacturing, mining, construction, and transportation. In the United States only 13 States limit their scope to the so-called hazardous industries, while 32 States cover the "nonhazardous" as well as the "hazardous" industries.

4. In Canada occupational diseases are compensable in every Province except Quebec and Yukon. Such diseases, however, are limited to those enumerated in the statutory schedule. In the United States only 6 of the 45 State laws include occupational diseases, but in these 6 States all occupational diseases are covered.

5. In Canada all of the Provinces except Manitoba, Quebec, and Yukon have exclusive State insurance funds. In Ontario, however, employers under schedule 2 (municipalities, railroad, express, telephone, telegraph, and navigation) are permitted self-insurance. In the United States only 8 of the 45 States have exclusive State funds, while 9 have competitive State funds.

6. In Canada probably the most significant characteristic of compensation legislation is the assumption of liability on the part of the Province. Injured workmen are paid direct by the workmen's compensation board out of the accident fund. This is true, irrespective of whether or not the employer has contributed his premiums to the fund and even if the employer is insured or carries his own risk. Failure on the part of the employer to meet his compensation obligations does not deprive the injured workman or his dependents of compensation benefits. This obligation is assumed by the accident fund, which in turn has redress against the defaulting employer through an action at law. Under none of the laws in the United States does the State assume liability. In case of insolvency of the employer and insurance carrier the injured employee loses his compensation benefits.

7. In Canada the workmen's compensation boards have exclusive and final jurisdiction over all compensation matters, no appeal to the courts being permitted except in New Brunswick and Nova Scotia. In these two Provinces appeal may be had to the Supreme Court upon questions of law, but only with the permission of the judge of said court. In none of the States of America does the administrative commission have final jurisdiction. In every State appeal may be had to the courts upon questions of law and in many of the States upon questions of fact.

8. In Canada members of the workmen's compensation boards hold office during good behavior, except that in British Columbia the term of office is 10 years. In most of the Provinces, however, they are subject to compulsory retirement at the age of 75. Each board is authorized to appoint its officers and employees and to fix their salaries. The term of office of such employees is subject to the pleasure of the board. In the United States the term of office of compensation commissioners is usually 3, 4, or 5 years.

9. As regards liberality, the benefits of the Canadian laws are about on a par with the more liberal of the American acts. The scale of benefits is considerably lower, but on the other hand the periods for which benefits are paid are much longer. In Canada compensation is usually paid during disability or until death or remarriage of the widow, while in most of the States the compensation periods terminate at the end of 300, 400, or 500 weeks. In none of the Provinces (Yukon excepted) is the waiting period over 1 week, and in most of the laws compensation when payable begins from the date of the injury, whereas in the United States 7 States have a waiting period of 10 days and 13 States of 2 weeks. In all of the Canadian laws the amount of compensation in case of disability is 55 per cent of the employee's earnings, except that in Quebec the percentage is 50; in the United States 20 States have a percentage of 60 or greater. The early Canadian laws did not provide for medical benefits, but some of the Provinces have recently made provision therefor; in the United States 42 of the 45 States provide medical service. All but five of these States, however, place some limitation upon the amount of the medical service which the employer is required to furnish.

#### Compensation and Insurance Systems.

ALL of the Canadian laws are compulsory upon employers coming within the scope of the act. In the five Provinces of Alberta, British Columbia, New Brunswick, Nova Scotia, and Ontario<sup>1</sup> all employers must contribute to the accident fund. Quebec and Yukon Territory have no State fund nor are employers in these jurisdictions required to insure. Manitoba has a hybrid system. Employers are required to insure in private casualty companies or provide self-insurance. Such insurance companies or self-insurers, however, must contribute to the accident fund. They must also contribute 7½ per cent of their premiums to the administration fund.

Out of these accident funds, which are managed by the workmen's compensation boards, are paid all compensation claims. The board

<sup>1</sup> Except employers enumerated in schedule 2, which includes municipalities, and railroad, express, telephone, telegraph, and navigation companies. Employers in these industries are individually liable, though they must deposit funds with the board, which pays the compensation direct to the injured employee.

classifies the industries according to the hazard, fixes and collects premiums, receives and investigates claims, grants awards, and pays the compensation benefits. As already noted, the workmen's compensation board assumes liability. Injured workmen are always paid direct by the board from the accident fund irrespective of whether or not the employer is insured or carries his own risk. Failure on the part of the employer to meet his compensation obligations does not deprive the employee of his compensation benefits. This obligation is assumed by the accident fund, which in turn has redress against the defaulting employer through an action at law.

#### Scope or Coverage.

THE scope or coverage of the Canadian laws is more restricted than that of most of the American acts. In all of the Provinces (Yukon excepted) the employments covered are limited to enumerated hazardous industries. Agriculture and domestic service are universally excluded. Most of the laws also exclude outworkers, traveling salesmen, nonhazardous clerical occupations, nonhazardous public employments, and casual employees employed otherwise than for the purpose of the employer's business. Alberta also excludes railroads. Moreover the workmen's compensation boards have been given discretionary power both to increase and to decrease the scope of the acts by adding to or subtracting from the industries enumerated in the statute. Under this authority the original statutory scope of the acts has been considerably changed. Many new classes of industries have been added; others have been excluded. In addition, the Ontario board has exempted certain classes of employers having less than a stipulated number of employees. The policy of the boards in including and excluding certain industries is apparently determined by the hazard of the particular industry and by the administrative difficulty of collecting premiums in the case of small employers. Exempted employments usually are given the privilege of coming under the act if either the employer or employee so desires.

Under all of the Canadian laws employees injured without the Province are entitled to compensation benefits if the place of business of the employer and the usual place of employment of the workmen are in the Province. The following provision found in the Alberta law is typical of that in the laws of practically all the Provinces:

(1) Where an accident happens while the workman is employed elsewhere than in the Province which would entitle him or his dependents to compensation under this act if it had happened in the Province, the workman or his dependents shall be entitled to compensation under this act—

(a) If the place or chief place of business of the employer is situate in the Province and the residence and the usual place of employment of the workman are in the Province and his employment out of the Province has immediately followed his employment by the same employer within the Province and has lasted less than six months; or



(b) If an accident happens to a workman who is a resident of the Province and the nature of the employment is such that in the course of the work or service which the workman performs it is required to be performed both within and without the Province.

(2) Except as provided by subsection 1, no compensation shall be payable under this act where the accident to the workman happens elsewhere than in the Province.

The following table shows more in detail the scope of the several Canadian compensation acts:

SCOPE OF CANADIAN COMPENSATION LAWS.

Inclusions: Enumerated hazardous employ- ments.	Exclusions. <sup>1</sup>				
	Outworkers.	Traveling salesmen.	Nonhazard- ous clerical occupations.	Casual em- ployees not in usual course of employer's business.	Public and other employments.
Alberta.....	Alberta.....	Alberta.....	Alberta.....	Alberta.....	Alberta (nonhazardous municipal; railroads; itinerant employees).
British Columbia.....	British Columbia.....	British Columbia.....	British Columbia.....	British Columbia.....	British Columbia (nonhazardous public).
Manitoba.....	Manitoba.....	Manitoba.....	Manitoba.....	Manitoba.....	Manitoba (nonhazardous public).
New Brunswick.....	New Brunswick.....	New Brunswick.....	New Brunswick.....	New Brunswick.....	New Brunswick (provincial).
Nova Scotia.....	Nova Scotia.....	Nova Scotia.....	.....	Nova Scotia.....	Nova Scotia (nonhazardous public).
Ontario.....	Ontario.....	.....	.....	Ontario.....	Ontario (provincial and nonhazardous municipal).
Quebec.....	.....	.....	.....	.....	Quebec (public employees; sailing vessels; employees receiving over \$1,200 a year and those working alone).
	Yukon.....	.....	.....	Yukon.....	Yukon (employers having less than 5 employees).

<sup>1</sup> Agriculture and domestic service are universally excluded.

### Accidents and Occupational Diseases.

CANADIAN compensation laws cover both accidents and occupational diseases. The provisions of the British act, both as to content and phraseology, have been adopted practically without change in nearly all of the Provinces. Every law except Quebec uses the phrase "personal injury by accident arising out of and in the course of the employment, unless it is attributable solely to the serious and willful misconduct of the workman." In four Provinces,<sup>1</sup> however, injuries due to willful and serious misconduct are compensable if they result in death or serious disability. In addition, New Brunswick excludes injuries if intentionally self-inflicted, due to intoxication, or caused by a fortuitous event not connected with the industry. Quebec also excludes intentionally self-inflicted injuries, while Yukon excludes those caused by intoxication.

As regards occupational diseases the Canadian Provinces followed the compensation law of Great Britain which originally included the following diseases and processes:

<sup>1</sup> Alberta, British Columbia, Manitoba, and Nova Scotia.

OCCUPATIONAL DISEASE SCHEDULE OF BRITISH WORKMEN'S COMPENSATION  
LAW OF 1906.

Disease.	Process.
Anthrax.....	Handling of wool, hair, bristles, hides, and skins.
Lead poisoning or its sequelae.....	Any process involving the use of lead or its preparations or compounds.
Mercury poisoning or its sequelae.....	Any process involving the use of mercury or its preparations or compounds.
Phosphorus poisoning or its sequelae.....	Any process involving the use of phosphorus or its preparations or compounds.
Arsenic poisoning or its sequelae.....	Any process involving the use of arsenic or its preparations or compounds.
Ankylostomiasis.....	Mining.

Manitoba and British Columbia adopted verbatim the British act of 1906; Alberta and Ontario added miners' phthisis to the original list; while Nova Scotia added the three following diseases: Subcutaneous cellulitis of the hand (miners' beat hand), subcutaneous cellulitis over the patella (miners' beat knee), and acute bursitis over the elbow (miners' beat elbow). New Brunswick did not adopt the British schedule, but grants compensation benefits for all occupational diseases, as determined by the board, contracted in industries within the scope of the act. Quebec and Yukon do not compensate for occupational diseases.

However, the foregoing diseases are compensable only if they are due to the nature of any employment in which the workman was employed at any time within one year previous to the date of disability. Compensation shall be payable in the first instance by the last employer. The latter, however, may recover from other employers whose employment had within the year contributed to the contraction of the disease.

## Waiting Period.

WITH the exception of Yukon Territory none of the Canadian compensation laws have a waiting period of over one week. In two Provinces the waiting time is only three days. Furthermore, in most of the Provinces compensation when payable begins from the date of the injury. The following table shows the waiting period for each Province:

WAITING PERIOD OF CANADIAN COMPENSATION LAWS.

Province.	Waiting period.
Alberta.....	3 days. None if disability lasts 10 days or more.
British Columbia.....	3 days.
Manitoba.....	6 days. None if disability is permanent or lasts over 6 days.
New Brunswick.....	1 week.
Nova Scotia.....	6 days. None if disability lasts over 6 days.
Ontario.....	6 days. None if disability lasts over 6 days.
Quebec.....	1 week. None if totally and permanently disabled.
Yukon.....	13 days. None if disability lasts over 13 days.

## Compensation Benefits.

THE compensation benefits of the Canadian laws are about on a par with the more liberal American acts. The scale of benefits is considerably lower, but on the other hand, the periods for which benefits are paid are much longer, compensation usually being paid during disability or until death or remarriage of the widow. In case of death the usual provision is a fixed monthly pension of \$20 to the widow, with an additional \$5 a month for each child, but not over \$40 in all. In case of disability the usual compensation is 55 per cent of the employee's earnings, to be paid during disability. The following table shows the per cent of wages paid as compensation, maximum weekly or monthly payments, and maximum period and amount of compensation payable in case of death, permanent total disability, and partial disability.

PER CENT OF WAGES PAID AS COMPENSATION, MAXIMUM WEEKLY OR MONTHLY PAYMENTS, AND MAXIMUM PERIOD AND AMOUNT OF COMPENSATION PAYABLE IN CASE OF DEATH, PERMANENT TOTAL DISABILITY, AND PARTIAL DISABILITY.

Province.	Per cent of wages.	Monthly or weekly maximum.	Maximum period and amount of compensation.		
			Death.	Permanent total disability.	Partial disability.
Alberta.....	Not based on wages	\$40 monthly pension (death); \$16 weekly pension (total disability).	Probable industrial life of deceased (\$2,500).	L i f e (\$2,500)	\$1,000.
British Columbia..	55 (disability).	\$40 monthly pension (death); \$22 weekly (total disability).	Probable industrial life of deceased.	Life.....	During disability.
Manitoba.....	55 (disability).	\$40 monthly pension (death); \$22 weekly (total disability).	Probable industrial life of deceased.	Life.....	During disability.
New Brunswick...	55 (disability).	\$40 monthly pension (death); \$15.86 weekly disability).	Probable industrial life of deceased (\$3,500).	L i f e (\$3,500).	During disability (\$1,500).
Nova Scotia.....	55 (disability).	\$40 monthly pension (death); \$13.20 weekly (total disability).	Probable industrial life of deceased.	Life.....	During disability.
Ontario.....	55 (disability).	\$60 monthly pension (death); \$22 weekly (total disability).	Probable industrial life of deceased.	Life.....	During disability.
Quebec.....	50 (disability).	.....	4 years' earnings (\$2,500).	L i f e (\$2,500).	During disability.
Yukon.....	50 (temporary total).	.....	\$2,500.....	\$3,000...	\$3,000.

## Weekly or Monthly Maximum.

The provisions relative to weekly or monthly maximums differ widely as between death and disability. In case of death the monthly maximum is usually \$40 (Ontario, \$60) but not over 55 per cent of the employee's wages. In case of total disability the weekly maximum amounts range from \$13.20 in Nova Scotia to \$22 in British Columbia, Manitoba, and Ontario. The Quebec and Yukon laws make no provision in this regard.



## Death.

Compensation benefits in case of death are not based upon wages. Instead, all of the Provinces except Quebec and Yukon provide a fixed monthly pension of \$20 for the widow (\$30 in Ontario) with an additional \$5 for each child (\$7.50 in Ontario). Payments to the widow continue for a period equal to the probable industrial life of the deceased husband, or to quote the law, "the payments shall continue only so long as in the opinion of the board it might reasonably have been expected had the workman lived he would have contributed to the support of the dependents." Payments to the children cease at 16 years and to the widow upon remarriage, except that in the latter event she is paid a lump sum equal to two years' compensation. Two of the above Provinces have a maximum limit; in Alberta this limit is \$2,500 and in New Brunswick \$3,500. Under the Quebec law the death benefits are four years' earnings of the deceased employee (maximum, \$2,500), while the Yukon law provides a flat sum of \$2,500. In addition to the compensation benefits most of the Provinces provide also for burial expenses, the maximum allowance usually being \$75.

## Total Disability.

In all of the Provinces (except Yukon) compensation for total disability accidents continue during disability and in case of permanent disability during the life of the injured workman. Three Provinces, however, provide a maximum limit—Alberta and Quebec \$2,500 and New Brunswick \$3,500. In five Provinces (British Columbia, Manitoba, New Brunswick, Nova Scotia, and Ontario) the amount of compensation is 55 per cent of the employee's wages, subject to weekly maximum and minimum limits. In Quebec the percentage is 50, while in Alberta the amount is not based upon wages, a weekly pension (maximum \$16, minimum \$10) being provided instead.

## Partial Disability.

The Canadian method of compensating partial disability accidents differs widely from the popular American method. Most of the laws in the United States contain a schedule of specified partial disabilities for which benefits are awarded for stated periods, the weekly payments being based upon a percentage of wages earned at the time of the injury. In Canada all of the Provinces except Alberta and Yukon base the amount of compensation upon the wage loss or impairment of earning capacity, payments continuing during disability. The workmen's compensation boards have authority to formulate partial disability schedules in which the loss of earning capacity of the various disabilities is expressed in percentages of total disability. The age and occupation of the injured workman is usually taken into con-

sideration in determining his impairment of earning capacity. One of these Provinces, however, has a maximum limit—New Brunswick \$1,500. Alberta and Yukon have adopted the Washington method and provide fixed amounts for certain specified injuries.

### Medical Service.

**A**LTHOUGH none of the early Canadian acts provided medical or surgical service in the present acceptance of the term, some of the Provinces have recently made provision therefor. The following table shows for each Province the amount of medical and surgical aid and the conditions under which it is furnished:

MEDICAL SERVICE PROVIDED UNDER CANADIAN COMPENSATION LAWS.

Province.	Maximum amount, and other qualifications.
Alberta.....	Reasonable expenses of last sickness in fatal cases involving no dependents; in other cases employees furnished medical aid from employer's hospital fund or State accident fund to which employees must contribute.
British Columbia....	Such service as reasonably necessary; transportation included; special provision for seamen; employer's hospital fund permitted.
Manitoba.....	Such medical attendance as board deems reasonable; maximum \$100; additional special treatment in permanent disability cases if compensation costs can be reduced.
New Brunswick.....	Such special medical and surgical treatment as will conserve the accident fund and such first-aid and hospital treatment as the board may require.
Nova Scotia.....	Reasonable service for 30 days in compensable injury cases; additional treatment if necessary to reduce disability; special provision for seamen; approved establishment benefit schemes permitted.
Ontario.....	Necessary service in compensable injury cases; transportation included; approved establishment benefit schemes permitted.
Quebec.....	No provision.
Yukon.....	No provision.

### Nonresident Alien Dependents.

**W**ITH the exception of Quebec all of the Provinces grant compensation to nonresident alien dependents but with certain qualifications and restrictions. In Alberta, the law provides that it shall be conclusively presumed that a workman, two years after his arrival in Canada, has no nonresident dependents other than his parents—one year after his arrival in case the workman is not of British nationality. In British Columbia nonresident alien dependents are entitled to compensation, but the board may award such lesser sum as will, according to the conditions and cost of living in the place of residence of such dependents, maintain them in a like degree of comfort as dependents of the same class, residing in Canada and receiving the full amount of compensation, would enjoy. In the other five Provinces (Manitoba, New Brunswick, Nova Scotia, Ontario, and Yukon) a nonresident alien dependent shall not be entitled to compensation unless by the law of the country in which he resides the dependents of a workman to whom an accident happens in such country if resident in Canada would be entitled to compensation.

Moreover, the amount of compensation shall not be greater than that granted under the foreign law. Furthermore, in Manitoba and Ontario, nonresident enemy aliens are excluded entirely from the benefits of the act. Ontario also denies compensation to a resident of a country "voluntarily withdrawn from alliance with the British Empire during the Great War, or of a country in default of establishing peaceful and harmonious relations with the British Empire." The Quebec law does not grant compensation to nonresident alien dependents.

#### Administration.

**I**N ALL of the Provinces except Quebec and Yukon, which have the court type of law, the administration of the compensation acts is under workmen's compensation boards. The members of the boards are appointed by the lieutenant governor and hold office during good behavior, except that in British Columbia the term of office is 10 years. In four <sup>1</sup> of the Provinces, however, the commissioners are subject to compulsory retirement at the age of 75. Each board is authorized to appoint its officers and employees and to fix their salaries. The term of office of such employees is subject to the pleasure of the board.

The boards have final and exclusive jurisdiction over all compensation matters, no appeal to the courts being permitted except in New Brunswick and Nova Scotia. In these two Provinces appeal may be had to the supreme court upon questions of law, but only with the permission of the judge of said court.

#### Accident Prevention.

**O**F THE six Canadian Provinces having administrative compensation boards, the British Columbia board is the only one which has statutory jurisdiction over accident prevention work. In all of the other Provinces this function is performed by other State or private agencies. The Alberta and Manitoba compensation laws made no provision for accident prevention at all, while the laws of New Brunswick, Nova Scotia, and Ontario authorize employers' associations to undertake this work, with a rather loose supervision by the workmen's compensation board.

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<sup>1</sup> Manitoba, New Brunswick, Nova Scotia, and Ontario.



## SOCIAL INSURANCE.

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### Increase in Statutory Benefits Under British Laws.

**I**NCREASES in cost of living are notably burdensome in the case of persons whose income is fixed by law, as in the case of public employees, and more especially of persons whose income is derived from pensions or other fixed awards.

#### Amendment of Workmen's Compensation Law.

**T**O MEET the needs of persons in one of these latter classes, i. e., injured workmen, the British compensation law was amended in 1917 by adding 25 per cent to current and accruing awards payable during total incapacity on the basis of the original act. This addition was to be effective during the period of the war and for six months thereafter. On December 30, 1919, royal assent was given to a "war addition" amendment, 1919, changing the 25 per cent increase to one of 75 per cent, effective January 1, 1920. This is an amendment to the Workmen Compensation (War Addition) Act, 1917, but contains no limitation as to term.

#### Old-Age Pensions Act, 1919.<sup>1</sup>

**A**NOTHER liberalizing enactment is one affecting the Old-Age Pension Acts, 1908, 1911. Perhaps the first change to attract attention is the increase of the maximum pension allowance from 5s.<sup>2</sup> per week to 10s. Pensions vary in accordance with the amount of income derived from other sources, being so graduated that the maximum receipts from property owned or other resources, combined with the pension allowance, shall give a weekly support amounting to 20s. This is the result of the 1919 amendment, and contrasts with the maximum of 13s. provided for by the law of 1908.

The original act allowed no benefits where the claimant had yearly means in excess of £31, 10s. but the amendment advanced this sum to £49, 17s. 6d. This enlargement of course brings an additional number of persons within the purview of the act, estimated to be 220,000.

A third change of importance is one striking out the provision that the receipt of poor relief would bar the recipient from pensions.

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<sup>1</sup> Source: Local Government Journal, London, Dec. 27, 1919.

<sup>2</sup> Owing to fluctuations in exchange value conversions into United States money are not made. The normal par value of the pound is \$4.87, of the shilling 24.3 cents, and of the penny 2 cents.

It was held that this was an artificial disqualification, laying an unwarranted social slight on the recipient of poor relief. It also led to inadequate standards of living; while now if the pensioner is found in need of outdoor relief, it is recognized as merely another form of assistance of the same general nature.

Other changes relate to term of residence, prison sentences, the status of wives of aliens, etc., the changes generally being in the direction of liberality.

#### Civil-Service Pensions.<sup>1</sup>

A THIRD item of like nature to the foregoing relates to the amounts of retirement pensions for civil servants. Due to a war bonus award, the Treasury agrees to add 40 per cent to the retiring salary, where it does not exceed £300, and 30 per cent to higher salaries, instead of 25 per cent and 20 per cent, as formerly. Thus a man drawing £100 annual salary would be rated £140 for retirement purposes, making his "half-pay" on retirement £70 instead of £63 as before.

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#### Restriction of Unemployment Benefits in Austria.<sup>2</sup>

IN VIEW of the serious financial situation in Austria, the Government has decided to proceed energetically with the abolition of unemployment benefits. The industrial district commission in Vienna has announced that it will cease to pay unemployment benefits to the following classes of workers:

1. Furniture makers, wheelwrights, shoemakers, brickmakers, clay workers, and women tailors.

2. Single and married unemployed manual workers and salaried employees with no children who before August 1, 1914, were not employed at work which involved compulsory sickness insurance or have not received suitable training in any trade in so far as in the opinion of the unemployment bureau they are unfitted for housework or agriculture.

3. Married women workers and employees (with the exception of those who before their husbands were called into military service were employed at work which made sickness insurance obligatory) whose husbands have returned from the war and are earning wages.

This limitation of unemployment relief is regarded by *Soziale Praxis* as a sound idea, which should be imitated in Germany, where the workers have turned the right to work into a right not to work.

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<sup>1</sup> Source: Local Government Journal, London, Dec. 27, 1919.

<sup>2</sup> *Soziale Praxis und Archiv für Volkswohlfahrt*. Berlin, Nov. 27, 1919.

## LABOR LAWS.

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### Suspended Sentences in Labor Law Cases in New York State.

A PAMPHLET of 20 pages prepared by Bernard L. Shientag, chief counsel to the New York State Industrial Commission, considers the matter of suspended sentences in labor law cases. The purpose of the pamphlet is to give publicity to a practice that is largely prevalent in the State of New York with regard to violations of the labor laws. The State is divided into two inspection districts, one including New York City, and the other, known as the second inspection district, the rest of the State. The study covers a period of two and one-half years, from July 1, 1917, to December 31, 1919. The policy of the commission as set forth is to secure compliance with the provisions of the labor law with as little friction and hardship for the employers as possible. In most cases notice is first sent, and time allowed for remedying the practice concerning which complaint is made. If this is not done, a warning letter is sent by the counsel, and if that does not produce results, prosecution is begun. Even then if the owner or employer complies with the law, the department asks that proceedings be dismissed, and "it is only in exceptional cases where the employer uses improper or obstructive tactics that this procedure is not followed." Naturally, after this forbearance, and exclusion of cases in which there is compliance, even though tardy, the commission feels that there should be an actual enforcement of penalties.

There are two principal classes of cases noted, one class consisting of those under the factory law, and the other of those under the mercantile law. Factory law cases relate to fire protection and to child labor. Under the mercantile law the chief difficulty is with the illegal employment of children, hours of labor of women, and the allowance of a day of rest. During the year ended June 30, 1918, there were 967 convictions under the factory law, resulting in 529 fines, aggregating \$11,930; while in 438 cases, or about 45 per cent, sentence was suspended. In the second inspection district, fines were assessed in but 59 cases out of 221 convictions, sentences being suspended in 73 per cent of the cases. There was a higher degree of strictness with regard to offenses against the fire protection law in New York City, the percentage of suspended sentences being 9; the up-State courts, however, were more lenient, suspending sentences in 70 per cent of the cases,



though here the class of cases considered was more inclusive. Of the convictions in mercantile cases 70 per cent were granted suspended sentences in New York City and 80 per cent up-State.

Effort is being constantly made to secure better cooperation between the courts and the commission, and that some success in this connection is being achieved is shown by the following brief table:

PER CENT OF SUSPENDED SENTENCES DURING EACH SPECIFIED PERIOD, IN NEW YORK CITY AND UP-STATE.

Period.	New York City.	Up-State.
	<i>Per cent.</i>	<i>Per cent.</i>
July, 1917, to June, 1918.....	58	75
July, 1918, to June, 1919.....	50	70
July, 1919, to December, 1919.....	47	69

The point is made that while the courts as a rule reach a conclusion as to the guilt of the defendant which is satisfactory to the commission, there is a serious weakening of the laws by a too general failure to enforce the penalties. While most employers comply with the statutes, there are those who disregard them, and for whom a penalty is the only persuasive argument. This is particularly the case where children are illegally employed or women are worked prohibited hours. An exit once constructed or a building otherwise altered remains the same, while a child may be reemployed after dismissal or a door be locked again when the fear of inspection is absent. Since inspection can not be constant, the imposition of a penalty is an indispensable aid to the enforcement of the law, and for this the aid of the judges is essential.

All we can do is to call public attention to these matters, and to plead for a closer and more sympathetic cooperation between the commission and the courts, in order that the purpose and intent of these beneficent laws, so important to the safety and welfare of the people, may be fully carried out.

## Comparison of Foreign Eight-Hour Laws.<sup>1</sup>

By LEIFUR MAGNUSSON.

**T**WENTY countries had embodied in their legislation, and one in its constitution, the principle of the 8-hour day or 48-hour week before the International Labor Conference, under the League of Nations, drafted its convention recommending the 8-hour day and the 48-hour week for incorporation into national legislation. Thus, as pointed out in effect by various speakers among Government and labor delegates, the conference

<sup>1</sup> See also, Report on the 8-hour day or 48-hour week, prepared by the Organizing Committee for the International Labor Conference, Washington, 1919 [London, 1919], page 156.

was merely engaged in registering accepted principles, or at the very most, in harmonizing divergences of practice in respect to the application of the 8-hour day. It was insisted upon by the workers and the Government delegates that the committee appointed to study the matter and to draft a convention should consider only the practical aspects of the matter, that the principle had already been agreed upon. To appoint a committee to discuss the principle of the 8-hour day and the 48-hour week, would be, as one Government delegate wittily put it, like appointing a committee for the discovery of America.

Aside, however, from the fact that the principle of the shorter workday has already been agreed upon in the legislation of the major civilized countries, there remains much to be accomplished in harmonizing that legislation, stopping up loopholes in it, and making it effective in practice. Probably the most valuable result of the international convention will be the effect it has as a standard for legislation of the kind in question. The convention raises the standards set up in some of the national legislation by broadening the scope of the legislation, specifying exceptions more explicitly, and defining the rate of overtime and the circumstances justifying overtime.

In this article a comparison is made of the provisions of the various 8-hour laws and the international 8-hour convention. The State laws of the United States and those of the States comprising the Federal unions of some of the South American countries have been omitted. No attempt has been made to cover those 8-hour laws of certain countries which are applicable to public employments, nor those already applying to mines. While some of these newer laws include mining, yet before the war and before the springing up of these general 8-hour laws, mining was already practically an 8-hour industry the world over, and is now moving in the direction of a seven or six hour day.

The following statement shows the countries included and the date of enactment of the 8-hour laws:

## GENERAL EIGHT-HOUR LAWS IN FOREIGN COUNTRIES.

Country.	Date.	Country.	Date.
Austria.....	Dec. 19, 1918.	Panama.....	Not ascertained.
Czecho-Slovakia.....	Dec. 9, 1918.	Peru.....	Jan. 15, 1919.
Denmark.....	Feb. 12, 1919.	Poland.....	Nov. 23, 1918.
Ecuador.....	Sept. 11, 1916.	Portugal.....	May 7, 1919.
Finland.....	Nov. 27, 1917 (amended Aug. 14, 19, 1918).	Russia.....	Oct. 26 (Nov. 11), 1917.
France.....	Apr. 23, 1919.	Serbs, Croats, and Slo- venes (Jugo-Slavia).	Sept. 12, 1919.
Germany.....	Nov. 23, 1918.	Spain.....	Apr. 3, 1919.
Luxemburg.....	Dec. 14, 1918.	Sweden.....	Oct. 17, 1919.
Mexico.....	Jan. 31, 1917. <sup>1</sup>	Switzerland.....	June 27, 1919.
Netherlands.....	Nov. 1, 1919. <sup>1</sup>	Uruguay.....	Nov. 17, 1915.
Norway.....	Aug. 14, 1918.		

<sup>1</sup> Constitution.<sup>2</sup> Date in effect.

## Types of Laws.

**T**HERE are two general types of 8-hour laws:<sup>1</sup> (1) Those in which the coverage is specific; and (2) those in which it is general. In the first instance, the laws specify the industries in which the principle shall be applied or abated; and in the second instance, the principle is stated as a general rule, to be applied in industries as may be determined by administrative order, or by the action of arbitration courts. This classification is very general, and in both types of laws administrative orders defining and permitting exceptions of the principle play some part. The draft convention of the International Labor Conference is an example of the use both of specifications in the general law and of administrative authority.

The Australian and New Zealand systems are the only examples of standardization and enforcement through arbitration courts. The 8-hour day in these countries has been quite universal for several years, and is mainly the result of collective agreements between employers and workers and of awards of the arbitration courts and trade boards. Aside from these observations concerning them, the Australian and New Zealand laws are not covered in this article.

The laws of the other countries are grouped as follows according to the general type of legislation in practice: Laws in which industries covered are specified are those of Austria, Czecho-Slovakia, Denmark, Ecuador, Finland, Luxemburg, Netherlands, Poland, Portugal, Russia, the Kingdom of the Serbs, Croats, and Slovenes; Sweden, Switzerland, and Uruguay. Laws in which industries covered are determined in detail by administrative orders are those of France, Norway, and Spain.

## Hours of Work Defined.

**A**LL the laws define the hours of work as the actual hours of work excluding rest periods.

The Peace Treaty, in Part XIII, defining labor standards, declared for the 8-hour day or 48-hour week as alternatives. The international convention drafted by the International Labor Conference used the term "8-hour day and 48-hour week," thus defining the working period in terms of both daily and weekly hours. The twofold method of definition, as against the alternative one, is obviously better calculated to prevent abuses in the application of the principle such as might take place if employees could be required to compress the whole 48 hours of the week into a period of days less than the number in the week. On the other hand the employers pointed to the greater

<sup>1</sup> See also report on the 8-hour day or 48-hour week, prepared by the organizing committee for the International Labor Conference, Washington, 1919 [London 1919], p. 5. Three types of laws are distinguished by this report, namely, the two mentioned above and the Australian arbitration-court laws.



flexibility in adjusting hours obtained by taking the week as the unit. The convention accepted what was in effect a compromise of the hard-and-fast rule, namely, a fairly liberal policy in respect to exceptions, and permitted the hours not worked on any weekday—hours less than the 8 prescribed—to be distributed over the remaining days of the week. The laws of the following countries accept either the day, or the day *and* the week, as the unit: Austria, Denmark, Ecuador, France, Germany, Luxemburg, Netherlands, Poland, Russia, and Uruguay. The following have adopted the 8-hour day or 48-hour week with the alternative form of definition: Finland, Norway (allows  $8\frac{1}{2}$  hours per day on 5 days of the week), Portugal, the Kingdom of the Serbs, Croats, and Slovenes, and Sweden (allows  $8\frac{1}{2}$  hours per day on 5 days of the week). Switzerland makes the week the unit in determining the hours. No limit is apparently placed on the day, except that in shift work the day may not exceed 9 hours.

#### Employees Included.

**M**OST of the laws include all persons employed in the industries covered by the acts, other than the members of a family. The international convention is specific and includes all departments of an industry so as not to discriminate between those who perform clerical work and the industrial workers in the same establishment. The laws, as near as may be determined without first-hand knowledge of administrative orders interpreting them, which cover only industrial workers are those of Austria, Czecho-Slovakia, Denmark, Germany, Russia, and Sweden. The last named is the only country which anticipates the international convention by specifically excluding persons in a managerial capacity and in positions of confidence. Laws covering only industrial workers naturally exclude this class. The laws of Czecho-Slovakia, Denmark, Netherlands, and Norway, which are likewise factory inspection laws of a general nature, make distinctions as to the hours of women, children, and adult male workers. The details can not be gone into in this analysis, which aims to cover only the general hours of work of adult males.

#### Industries Excluded.

**I**T is not possible to determine exactly the coverage of the laws. Either by express mention or by implication, certain industries and employments are excluded. The acts usually cover those undertakings which are included in the factory legislation of the country, and only a detailed first-hand study could determine the exact scope of the terms "factory" or "industrial undertaking." Consequently, a negative form of definition is probably more helpful than a positive one in order to determine the scope of the laws. All the laws, with

the exception of those of Ecuador, France, Poland, Portugal, the Kingdom of the Serbs, Croats, and Slovenes; Sweden, and Uruguay, exclude commercial and office employments. In some respects these laws set a higher standard than the international convention. Homework is universally excluded, as are all undertakings where only members of the family are employed. Agriculture is also generally excluded, except in the Czecho-Slovakian law, and in the Dutch law during periods other than the harvest season. The Danish law applies only to work in continuous industries and of all the laws is therefore the most limited in scope. Seasonal industries are either excluded entirely or are given special treatment in the exceptions allowed. Except in Sweden, where special laws exist for that class of work, public employments are included along with private undertakings.

#### Exceptions Permitted.

**E**VEN within the scope of the various laws certain exceptions are permitted to be supplied by administrative order. In determining these exceptions, it is customary to consult the organizations of workers and employers. The customary exceptions are either temporary or permanent exclusions of an industry or certain departments thereof. All the laws make temporary exceptions in the case of seasonal industries; also in case of exceptional pressure of work, as well as in the case of emergencies created by unforeseen accidents or force majeure. The law of Czecho-Slovakia, while including agriculture, makes exception in the distribution of the hours of work, spreading them over a period of four weeks so as to attain an average of 48 per week. France has a provision which is found in no other law, namely, that exception may be made in the case of an industry if an international agreement is entered into providing for different hours in the industry in question. Switzerland has the only act which contains a provision that an exception from the application of the 8-hour rule may be granted to an industry to enable it to meet the competition of countries working longer hours.

#### Overtime.

**T**HE international convention is the most explicit as respects the provisions affecting overtime. Here the rate of overtime is definitely fixed at time and a quarter; the amount of overtime is subject to determination by agreement between the employers' and workers' organizations. The international convention further requires special authorization for working overtime and provides for the registration of the amount of overtime worked. Few of the national laws are as specific on this point. Those which provide for an extra rate of compensation for overtime are the laws of Austria, Ecuador, Finland, France, Poland, Portugal, and the Serbs, Croats,

and Slovenes. The amount of overtime is limited by the laws of the following countries: Austria, Finland, Netherlands, Russia, Sweden, and Switzerland. The laws in which registration of the amount of overtime is required are those of Finland, Poland, Russia, and the Serbs, Croats, and Slovenes. Those countries which have laws laying down the principle of an 8-hour day and leaving its application to administrative order make no detailed provision respecting overtime.

#### Administration.

THE general administration of the 8-hour laws is confided to the factory inspection departments and related services. The ordinary police authority and inferior courts try all cases of contravention under the law. Only one country, Peru, provides for the settlement of disputes as to wages arising from the application of the law, by an arbitration board composed of three members, two representing the parties and the third an arbitrator chairman chosen by the supreme court. No provision, however, is made as to enforcement of the award, although the arbitrators are required to report within eight days after assuming jurisdiction of the dispute. However, in this connection it should be noted that the majority of the other countries have arbitration and conciliation boards for the settlement of ordinary labor disputes so that the provision of the Peruvian law is not necessarily an advance on the 8-hour legislation of the other countries as far as the settlement of disputes is concerned.

#### Conclusion.

THIS brief study of the 8-hour laws of various countries has served to show the great diversity in the provisions which the laws lay down respecting the application of the 8-hour principle. Some are obviously extremely vague and limited in scope, others are pious wishes at the most. None are as definite or as comprehensive as the international convention adopted at the International Labor Conference in Washington (October 29–Nov. 29, 1919), the acceptance of which would in most countries constitute a distinct advance over the existing 8-hour laws.

Topical summaries of the 8-hour laws now in force in various foreign countries and of the international convention on the 8-hour day follow:

#### Topical Summaries of Eight-Hour Laws.

##### International Convention.<sup>1</sup>

*Date of adoption.*—Conference of October 29, 1919; effective as to members ratifying it, July 1, 1921.

*Hours of work defined.*—Working hours shall not exceed 8 per day and 48 per week.

*Persons included.*—All persons other than members of family and those engaged in homework employed in undertakings specified.

<sup>1</sup> Reproduced in full in February issue of the MONTHLY LABOR REVIEW, pp. 15 to 20.



*Industries covered.*—Industries whether public or private include particularly mines, quarries, and other works for the extraction of minerals from the earth; establishments engaged in the manufacture, alteration, cleaning, repairing, ornamenting, finishing, adapting for sale, breaking up or demolishing, or transformation of materials; shipbuilding; generation and transmission of electric or motive power; construction and maintenance work in general; transportation, handling, and warehousing.

*Reduction in wages.*—No provision.

*Exceptions.*—Persons in a supervisory or managerial position, or confidential capacity; shift work, provided the average weekly hours for a period of 3 weeks do not exceed 48; accident, actual or threatened, urgent work to machinery or plant, or in case of force majeure when necessary to maintain ordinary work; certain conditions, when authorized by the Government, in which cases the average per week shall not exceed 48; certain occupations preliminary to and subsequent to beginning and stopping of work; unexpected demands upon the capacity of an establishment; national emergency. Special exceptions made as to time when becoming effective in case of certain Governments.

Not exceeding 56 hours per week in processes carried on under continuous operation.

*Overtime.*—Rate of compensation for overtime fixed at time and a quarter. Amount of overtime to be determined by administrative regulation and after consultation with employers' and workers' organizations.

*Special orders.*—Permanent and temporary orders may be issued by the Government after consultation with the organizations of employers and workers concerned, if such exist.

*Administration.*—Left to national authority, which will determine the appropriate agencies of enforcement.

#### Austria.

*Date of enactment.*—December 19, 1918; effective January 3, 1919. Continues in force until conclusion of peace.

*Hours of work defined.*—Hours of work shall not exceed 8 in 24, excluding breaks in work. For young people and women, 44 per week, and no work on Saturdays after 12 noon.

*Persons included.*—Industrial workers.

*Industries covered.*—All undertakings conducted by a corporation, State, Province, or commune, if operated as factories subject to the Industrial Code.

*Reduction in wages.*—No provision.

*Exceptions.*—When necessary to make up for unforeseen interruption not periodically recurring; press of work, especially in seasonal industries; in cases of collective contracts calling for a maximum of 48 hours per week; subsidiary processes (heating boilers, cleaning, etc.), provided young people are not so employed.

*Overtime.*—Overtime work paid for at 150 per cent normal wages; limited to 2 hours per day and not exceeding 3 weeks.

*Special orders.*—May allow further exceptions, after consultation with an advisory board on which employers and workers are equally represented.

*Administration.*—Factory inspection service and police authorities connected therewith. Contraventions are subject to the penal provisions of the Industrial Code.

#### Czecho-Slovakia.<sup>1</sup>

*Date of enactment.*—December 9, 1918.

*Hours of work defined.*—Actual hours of labor limited to 8 per day and 48 per week.

*Persons included.*—Workers.

<sup>1</sup> The Czecho-Slovakian law is also a general factory act and includes provisions affecting the employment of women and children, night work, rest periods, etc.

*Industries covered.*—Industrial undertakings, whether public or private, or conducted for profit, philanthropic or charitable purposes; mining, coke ovens, and blast furnaces, agriculture and lumbering, provided they are run as enterprises by hired labor; transportation.

These provisions may not be evaded by giving out homework.

*Reduction in wages.*—Prohibited if based on decrease in actual hours worked.

*Exceptions.*—In particular classes of undertakings, especially transport and agriculture, the hours may be spread differently over a period for 4 weeks, the total therein not to exceed 192 hours; one-half hour for ascent and descent allowed in mines; where work is by shifts; force majeure, accidents, extraordinary demand, when other means are not practical; emergency work or repair work when life, health, or public interests are in danger; fixing of boilers, cleaning of workrooms, feeding animals, etc.; public utility establishments not requiring over 6 hours of work per day.

*Overtime.*—All overtime work separately paid for, rate not stated. Excluding emergency work, the maximum amount of overtime is 2 hours per day within a period of 20 weeks or 240 hours per year.

*Special orders.*—Required for overtime work, except for emergency and preparatory work, work when life, health or public interest is at stake. In special cases, in railroad work extra hours may not be required unless the minister previously consults workers' representatives.

*Administration.*—Ministry of Social Welfare and its subordinate, factory and mine-inspection service, the railroad administration, and local and municipal police authorities.

#### Denmark.

*Date of enactment.*—February 12, 1919; in effect, August 12, 1919.

*Hours of work defined.*—No worker in continuous operation may have gross hours of labor in excess of 8 per day, or more than 160 hours in 3 weeks; 16 hours at change of shifts permissible.

*Persons included.*—Workers in establishments covered.

*Industries covered.*—Industries regularly operated continuously; seasonal industries with four months of continuous process work.

*Reduction in wages.*—No provision.

*Exceptions.*—On change of shift days hours may be extended to 16; seasonal industries for four months in any year; repair work, sickness, or for completion of a specific job.

*Overtime.*—No provision.

*Special orders.*—Required in case of seasonal industries covered and after consultation with employers' and workers' organizations.

*Administration.*—Minister of labor and subordinate factory inspection service; advisory labor council representing employers and workers equally and under chairmanship of State official.

#### Ecuador.

*Date of enactment.*—September 11, 1916.

*Hours of work defined.*—Not more than eight hours daily, six days a week.

*Persons included.*—Laborers, mechanics, employees.

*Industries covered.*—Commercial establishments, offices, industrial enterprises, and in general any business whatever the nature of the services rendered.

*Reduction in wages.*—No provision.

*Exceptions.*—Laborers, mechanics, clerks, etc., may work beyond the legal limit upon request.

*Overtime.*—Overtime, before 6 p. m. is paid 20 per cent extra; between 6 and 12 p. m., 50 per cent, and after the last-named hour 100 per cent.

*Special orders.*—No provision.

*Administration.*—Judges of police court and parish justices try suits under act.

## Finland.

*Date of enactment.*—November 27, 1917, amended August 14, 1918; administrative orders, August 19, 1918.

*Hours of work defined.*—Actual work not to exceed 8 hours per day (bank to bank in mining), or 96 hours in 2 weeks.

*Persons included.*—All persons in industries and undertakings mentioned, other than owner and members of his family.

*Industries covered.*—Whether public or private or conducted for profit or philanthropic purposes, handicrafts, factory or other industrial occupations, building, repair, and upkeep of buildings, and construction of docks, railways, bridges, roads, etc., salvage, and diving; bathing establishments; clearing, cleaning, draining, and scavenging; rafting and lumbering; loading and unloading; commercial, office, or warehouse work; inns, hotels, cafés, and similar industries; railway and street traffic, except traffic and rail sections; postal, customs, telephonic service, canals, except traffic sections; automobile traffic and jobbing; industries and undertakings similar to the above.

*Reduction in wages.*—No provision.

*Exceptions.*—In case of accident, force majeure, or other occurrence threatening to interrupt work or cause damage, such extra work not included in the regularly allowed overtime; establishments where work requires to be carried on uninterruptedly day and night: (a) 156 hours in 3 weeks with suspension on Sunday; (b) 168 hours in 3 weeks without such suspension (Senate decree, Aug. 19, 1918); subsidiary work in cleaning, repairing, heating, etc.

*Overtime.*—Overtime rate of time and a half for the first 2 hours, and double time for subsequent hours; amount of overtime not to exceed 24 hours in 2 weeks, and over 350 hours per year. Consent of inspection authorities required for overtime beyond 200 hours a year; registration and account of all overtime required.

*Special orders.*—Defining in detail exemptions from the law if, owing to the technical nature of the work, the time of year, or the compelling circumstances, the act can not be applied in practice.

*Administration.*—Department of Social Welfare and the subordinate factory inspection service, together with local police authorities.

## France.

*Date of enactment.*—April 23, 1919 (forms Title I of Book II of the Labor Code).

*Hours of work defined.*—Actual hours of work limited to 8 per day or 48 per week.

*Persons included defined.*—Any age or sex, whether wage earners or salaried persons.

*Industries covered.*—Industrial and commercial establishments, including all departments thereof; both private and public undertakings whether of a religious, educational, charitable or philanthropic nature.

*Reduction in wages.*—No reduction in wages allowed as result of shortening hours through law.

*Exceptions.*—Left to administrative order for determination in general. Subject to revision if contrary to international agreements entered into.

*Overtime.*—Left to administrative order for determination.

*Special orders.*—Terms of law applied through administrative orders which apply either to a trade or locality or both. These will determine distribution of hours within week or other period, temporary and permanent exceptions, rest periods. Consultation with employers and workers required in advance of promulgation of orders or decrees.

*Administration.*—Ministry of Labor and subordinate factory inspection service.



Germany.<sup>1</sup>

*Date of enactment.*—November 23, 1918; effective upon publication.

*Hours of work defined.*—Regular daily hours of labor, exclusive of rest periods, must not exceed eight. Curtailment on days preceding Sundays and holidays may be made up on other working days.

*Persons included.*—Industrial workers.

*Industries covered.*—All industrial establishments, inclusive of mining; Federal, State, and communal establishments, and agricultural subsidiary establishments of an industrial nature.

*Reduction in wages.*—No provision.

*Exceptions.*—General exceptions in transportation and communication (railway, post and telegraph service) subject to agreements between managers and workmen's organization; shift changes (permitting a 16-hour day once in 3 weeks); temporary emergency work not permitting delay; if public interest or nature of work requires uninterrupted work, provided labor can not be secured.

*Special orders.*—Factory inspection may authorize exceptions. Any hours of labor differing from the above must be in consequence of agreements, subject to approval of administrative officials.

*Administration.*—Department of Labor, factory and mine inspection services, and local police authorities.

## Luxemburg.

*Date of enactment.*—December 14, 1918, administrative decree, December 14, 1918; effective December 15, 1918. Temporary, duration not specified.

*Hours of work defined.*—Actual duration of hours of work shall not provisionally exceed eight per day.

*Persons included.*—All employees in the classes of establishments enumerated below.

*Industries covered.*—Mines, clay-pits, quarries; iron and steel works and factories, establishments classed as dangerous, unhealthful, or noxious; factories employing steam or other mechanical motive power; public and private establishments, including those established for the purpose of industrial education or philanthropic purposes.

*Reduction in wages.*—Reduction of wages because of a reduction in hours is prohibited.

*Exceptions.*—Railroad transportation; work under direction of family authority, when not classed as dangerous or unhealthful or as not requiring heavy manual labor, and if steam or other mechanical power is not employed; handicraft and small industries employing less than 20 persons.

*Special orders.*—Exemptions, whether in general or for a limited time, may be authorized on special grounds.

*Administration.*—Ministry of Agriculture, Industry, and Commerce and subordinate factory inspection service.

Netherlands.<sup>2</sup>

*Date of enactment.*—Not ascertained; effective November 1, 1919.

*Hours of work defined.*—Actual hours of work per day not to exceed 8 hours per day and 45 per week.

*Persons included.*—All persons employed in factories, workshops, and offices.

<sup>1</sup> Full translation of the text of the order was published in the MONTHLY LABOR REVIEW, May, 1919, pp. 214, 215.

<sup>2</sup> Summary made from report on 8-hour day and 48-hour week, prepared by the organizing committee of the International Labor Conference, Washington, 1919. [London, 1919.] This law is more than an hours-of-labor regulation and applies also to the employment of women and children, age of admission to industry, etc.

*Industries covered.*—All industries except domestic service, agriculture during other than harvest seasons, and those for which other laws are applicable—stonecutters, harbor workers, mine workers, tramway and railroad transportation employees.

*Reduction in wages.*—No provision.

*Exceptions.*—Work of preparation and of cleaning up in factories, etc., allowed up to 10 hours per day; caretakers permitted to work up to 13 hours per day and 78 hours per week; seasonal industries; general exception for certain factories and workshops specified by order.

*Overtime.*—Amount of overtime generally limited to 2 hours per day and 7 hours per week; special order may permit 1 hour daily for 5 days per week as a regular rule in designated factories; seasonal industries, maximum hours limited to 11 hours per day for adult males (10 for women) and 62 per week (55 for women). Instances of overtime in any establishment are not to exceed 24 each year except in case of seasonal industries and like pressure of work, and provided only part of factory was affected by previously granted permits.

*Special orders.*—Allow exceptions and relaxations of the law, for certain establishments or classes of establishments.

*Administration.*—Department of Labor and subordinate factory inspection service; police and local authorities of various kinds.

#### Norway.

*Date of enactment.*—August 14, 1918; in effect on publication; continues in force 12 months after declaration of peace.

*Hours of work defined.*—General hours of work shall not exceed 8½ per day and 48 per week.

*Persons included.*—All workers in establishments designated by Crown.

*Industries covered.*—All industries covered by Factory Act of 1915 as follows: Handicraft and industrial establishments having the character of a factory, employing other than hand power or steam boilers, and not employing motors of 1 horsepower or over; quarries, clay and chalk pits; stone dressing employing five or more persons regularly; mines, ore dressing, and smelting works; mining and smelting; works manufacturing or using explosives; handicraft or other industrial occupations employing five or more persons outside of the workman's home; ice cutting, warehousing, packing, stevedores, etc.; building trades, water, gas, and sewer constructions; bridge building; construction of roads, railways, harbors; telegraph and telephone installations, etc.

*Reduction in wages.*—No provision.

*Exceptions.*—Extraordinary circumstances, provided authorization is secured.

*Overtime.*—In extraordinary circumstances by authorization.

*Special orders.*—Designate establishments to be governed by act.

*Administration.*—Ministry of Labor and subordinate factory inspection service. Special wage board of five members selected by Crown to settle disputes as to wage changes arising under the law.

#### Panama.

*Date of enactment.*—Not ascertained.<sup>1</sup>

*Hours of work defined.*—Eight hours of work constitute a day's work.

*Persons included.*—All workers and commercial employees.

*Industries covered.*—All private and public undertakings whether industrial or commercial in their nature.

*Reduction in wages.*—No provision.

*Exceptions.*—Cases of urgent necessity; continuous processes; interruption likely to cause injury to interests of the public and of health; natural occurrences.

<sup>1</sup> Summary made from report on the 8-hour day and the 48-hour week prepared by the organizing committee for the International Labor Conference, Washington, 1919. [London, 1919.]

*Overtime.*—All work beyond hours stipulated is overtime and to be "remunerated accordingly." Permitted by special agreements between workers and employers.

*Administration.*—No provision.

#### Peru.

*Date of enactment.*—January 15, 1919 (decree by president).

*Hours of work defined.*—A day's work is fixed at eight hours.

*Persons included.*—All persons employed in industries covered.

*Industries covered.*—State workshops, railways, agriculture and industrial establishments, and all public works undertaken by the State. Private establishments unless otherwise agreed upon by employers and workers.

*Reduction in wages.*—Present wages to continue without change through reduction in hours.

*Exceptions.*—No provision.

*Special orders.*—No provision.

*Administration.*—Disputes as to wages arising from the application of this law, adjusted by an arbitration board of three members, two representing the parties and the third an impartial chairman chosen by the supreme court. Arbitrators must report in eight days. No provision as to enforcement of an award.

#### Poland.

*Date of enactment.*—November 23, 1918; in effect upon publication.

*Hours of work defined.*—Hours of labor must be limited to 8 hours daily and on Saturdays to 6 hours, exclusive of rest periods. When daily hours necessarily exceed 8 not more than 46 per week permitted.

*Persons included.*—All workers and employees in industries covered.

*Industries covered.*—All industrial establishments, mines, furnaces, workplaces, transportation by land and by water, and commercial occupations.

*Reduction in wages.*—Reduction in wages as result of reduced hours prohibited.

*Exceptions.*—Permitted only upon special authority. The 6-hour day may be any week day when agreed to by the city or local council.

*Overtime.*—Compensated at a higher rate than normal. Voluntary overtime agreements must be ratified by the labor inspectors; authorization required for obligatory overtime.

*Special orders.*—Special regulations and explanations may be issued by minister of labor and public welfare.

*Administration.*—Ministry of Labor and Public Welfare and subordinate factory inspection service as soon as constituted; at present, police authorities.

#### Portugal.

*Date of enactment.*—May 7, 1919; in effect May 17, 1919.

*Hours of work defined.*—Maximum period of work limited to 8 hours per day or 48 per week; commercial and financial institutions 7 hours per day.

*Persons included defined.*—All classes of employees in undertakings covered.

*Industries covered.*—State employment, administrative, commercial and industrial undertakings; transportation.

*Reduction of wages.*—Reduction of wages as result of reduced hours prohibited.

*Exceptions.*—Agriculture and domestic service, including hotels, restaurants, etc.; national emergency, mobilization; accidents by fire, flood, explosion, grave disaster, force majeure; special cases when authorized. Barber shops and business houses may work four hours extra on Saturdays. In dangerous and unhealthful processes further reduction in hours permitted; and if impossible to arrange work in shifts.

*Overtime.*—Double pay, excepting when for the State and administrative bodies and paid for under existing regulations.



*Special orders.*—May regulate shift-work in transportation; fix the time of opening and closing industrial and commercial establishments, and time for recreation.

*Administration.*—Factory inspection service and police authorities.

#### Russia.<sup>1</sup>

*Date of enactment.*—October 26 (Nov. 11), 1917.

*Hours of work defined.*—The working day not to exceed 8 hours a day and 48 hours a week, including the time necessary for cleaning machinery and clearing up the works.

*Persons included.*—All persons working as wage earners in industries covered.

*Industries covered.*—All commercial and productive establishments regardless of their size and legal status.

*Reduction in wages.*—No provision.

*Exceptions.*—Night or seasonal work to satisfy public needs; preparatory work and work after the regular hours of an establishment; preservation of raw materials; danger to persons or property; water and light supply plants, heating, canalization and important public means of communication; necessary repair work; prevention of injury to machines, apparatus, etc., which might cause cessation of work; repair of damage by flood or fire; watchmen, guards, etc.

*Overtime.*—Double time rate; limited to 50 days in the year and to 4 hours in any two consecutive days; authorization required in most instances, and record of amount kept in all instances.

*Special orders.*—Required in case of exceptions covering unavoidable necessity and in restricting hours in dangerous and unhealthful occupations.

Consultation with employers and workers necessary for designation of certain holidays and permitting suspension of the law during hostilities.

*Administration.*—General administration of factories and mines.

#### Serbs, Croats, and Slovenes (Jugo-Slavia).

*Date of enactment.*—September 12, 1919; in effect one month after publication.

*Hours of work defined.*—Regular hours of labor, exclusive of rest periods, may not exceed 8 hours per day or 48 hours per week.

*Persons included.*—All employees in the classes of establishments covered.

*Industries covered.*—All industrial and handicraft establishments, mines, mercantile and transportation enterprises, whether privately or State owned, and establishments of an industrial character in agriculture and forestry.

*Reduction in wages.*—No provision.

*Exceptions.*—(1) Home-working establishments in which only members of the family of the entrepreneur are employed; (2) establishments requiring continuous operation (16-hour day permitted for adult workers once in three weeks at shift change); (3) in case of unforeseen emergencies (with modification of the proper authorities); (4) on application, the proper authorities may issue permits for a 10-hour day or a 60-hour week for a duration of 4 weeks to individual establishments or individual departments of an establishment and to seasonal industrial and handicraft establishments (these permits may be renewed not more than 3 times in a calendar year and each time for a maximum of 4 weeks); (5) cases of force majeure; (6) auxiliary work on which the beginning or termination of operation is conditioned (cleaning, attendance of boilers, machines, etc.).

*Overtime.*—Overtime work paid at 150 per cent of normal wages. In case of piecework wages the forty-eighth part of the weekly earnings to be considered as the normal hourly wage.

<sup>1</sup> The decree is more than an 8-hour regulation and is practically a comprehensive factory law covering also the employment of women and children and night work.

*Special orders.*—In transport and communication enterprises (railroads, mails, telegraph, telephone, traction and steamship companies, etc.) the law is to be applicable with such amendments as are required by the nature of these enterprises. Such amendments to be determined by the proper ministers in conjunction with the minister of social welfare.

*Administration.*—Ministry of social welfare, industrial and mining authorities or factory and mine inspection service or political authorities.

#### Spain.

*Date of enactment.*—April 3, 1919; in effect October 1, 1919.

*Hours of work defined.*—The legal maximum hours of labor shall not exceed 8 per day or 48 per week.

*Persons included.*—All persons employed in industries covered.

*Industries covered.*—All industries until exceptions have been determined by administrative order.

*Reduction in wages.*—No provision.

*Exceptions.*—Determined by administrative orders to be issued not later than January 1, 1920.

*Special orders.*—Determining scope of law; consultation with committee representing workers and employers provided for.

*Administration.*—Institute of Social Reform and subordinate factory inspection service and various police authorities; advisory committees of employers and workers.

#### Sweden.

*Date of enactment.*—October 17, 1919; in effect January 1, 1920 (July 1, 1920, in case of continuous processes); operative until December 31, 1923.

*Hours of work defined.*—Actual hours of work exclusive of rest periods generally limited to 8 per day or 48 per week; but without exceeding the weekly limit, 8½ hour permissible the first five days of the week.

*Persons included.*—All employees except (a) persons in managerial positions; (b) persons doing secretarial or clerical work; (c) watchmen and (d) office employees.

*Industries covered.*—(1) All establishments, industrial and nonindustrial, private or municipal, employing four or more persons or located in community of over 1,500 inhabitants; (2) building construction work of every kind, provided that four persons are employed. Industries or work excluded are (1) Homework and work by members of family; (2) work of irregular or casual nature; (3) State establishments; (4) care of sick; (5) seamen, etc.;<sup>1</sup> (6) forestry and lumbering; (7) agriculture and related industries; (8) transportation by rail; (9) stores, barber shops, and related establishments; (10) hotels, restaurants, etc.

*Reduction in wages.*—No provision.

*Exceptions.*—Allowed by the advisory council representing employers and workers. National emergencies may occasion overtime; work in shifts may exceed the weekly limit of 48 hours, provided the average over a period of three weeks does not exceed 48 hours. In seasonal and other trades the average of 48 hours may be prorated over a period not exceeding four weeks. In case of industrial emergencies, such as work to prevent accidents and spoiling of perishable products, work in excess of the legal limits is permitted. Undertakings which may find it necessary to close down if compelled to accept the 8-hour day may be allowed to defer the introduction of the 8-hour day upon orders by the Crown after advice of the labor council created.

*Overtime.*—Amount of overtime limited to 25 hours per month, and 150 hours per year for adult workers (18 years and over) and 10 hours per month in the case of young persons. Further overtime of 10 hours per month and 75 hours per year permitted by

<sup>1</sup> Covered by special law October, 1919. See MONTHLY LABOR REVIEW, December, 1919, pp. 258-260.

authority of factory inspector. Details respecting overtime left to collective agreements.

*Special orders.*—Define and limit exceptions.

*Administration.*—Department of Labor and subordinate factory inspection service; police authorities, courts, etc. Special advisory council representing employers and workers set up for advice in drafting regulations, etc.

#### Switzerland.

*Date of enactment.*—June 27, 1919.

*Hours of work defined.*—Single-shift work not to exceed 48 hours per week; if hours on Saturday are less than 8, remaining hours may be distributed over the 5 days of the week, so long as the week does not exceed 48 hours. Work at night (permitted by competent authority) not to exceed 8 hours, but in shift work it may be 9 hours.

*Persons included.*—All employees in industries and occupations covered.

*Industries covered.*—All factories or industrial establishments operated by machine power employing at least 6 persons; those not having machine power but employing at least 11 persons; those employing any persons under 18 years of age if at least 6 persons altogether are employed; establishments involving injurious or unhealthful processes.

*Reduction in wages.*—No provision.

*Exceptions.*—Allowed by competent authority in case of duly ascertained need; in case of preparatory work and work of cleaning, etc., after hours; if necessary to enable an industry to meet competition of countries working longer hours. Maximum of exception allowed is 52 hours per week.

*Overtime.*—Not over 2 hours per day except in case of duly ascertained need; nor for a period exceeding 10 days by district or local authority and over 10 days but not exceeding 20 days by cantonal authority, and not exceeding 24 days in general during the year. This limit may be exceeded by agreement between employers and workers in very exceptional cases (seasonal work), and if any previously issued permits have applied only to part of factory or some of the workers; but prolongation of day preceding Sundays and holidays is permitted only in case of duly ascertained need which must not lie in nature of the industry.

*Special orders.*—Define amount of overtime and rest periods and extent of exceptions permitted.

*Administration.*—Department of Industry and Commerce and the subordinate factory inspection service.

#### Uruguay.<sup>1</sup>

*Date of enactment.*—November 17, 1915; effective February 17, 1916.

*Hours of work defined.*—Actual work 8 hours per day and 48 hours per week.

*Persons included.*—All employees in industries covered.

*Industries covered.*—Any factory, workshop, shipyard, stoneyard, earthworks, harbors on coasts or rivers, industrial and commercial establishments, railroads, street railway service, loading or unloading ships, and on public works.

*Reduction in wages.*—No provision.

*Exceptions.*—Such as are granted by special authorization; affect only daily hours; weekly hours may exceed 48.

*Overtime.*—No provision as to rate, amount, or kind.

*Special orders.*—The executive authority may permit extension of the daily hours in exceptional cases.

*Administration.*—Treasury department, the factory inspection service, and police authorities.

<sup>1</sup> Law summarized in the MONTHLY REVIEW for April, 1916, pp. 84, 85.



## Profiteering Act of Great Britain.

**I**N AUGUST last the British Parliament passed a measure to be cited as "the Profiteering Act, 1919." It provides for investigation of complaints by the Board of Trade, which may also establish local committees for the handling of matters arising in the locality. The subjects to be investigated are prices, costs, and profits at all stages, and also complaints as to unreasonable profits. The board or the local committee may either dismiss the complaint on hearing, or declare the price that would yield a reasonable profit and require the return of the excess charged above such price. Violations may be punished by fine and imprisonment; false and reckless complaints also entail liability of similar punishment.

Articles covered include those designated by the Board of Trade, "being an article or class of articles declared by the order to be one or one of a kind in common use by the public, or being material, machinery, or accessories used in the production thereof." Articles subjected to other regulations, known as "controlled articles," are exempt from the provisions of this act, as are also goods for export or sales at public auction or on competitive tender. The Board of Trade has power to make regulations for the carrying out of the purposes of the act and the government of local committees. These committees may exercise in general the powers of the board except as regards the fixing of prices. Appeals may be taken to tribunals to which the decisions of local committees may be referred, and either the local committee or the appeal tribunal may refer cases to the court of summary jurisdiction for the prosecution of offenders.

The Board of Trade may take action by way of investigation on its own initiative, and is directed to do so as regards trusts, combinations, etc., connected with the regulation of prices or the production of commodities. Local committees will proceed normally on complaints submitted to them, the regulations requiring such complaints to be made within 4 days after the transaction, though this period may be extended by the local committee to not later than 14 days. Proceedings are to be public and reports of the evidence and sentences are to be published in the local press. As a further means of reducing the cost of living the Board of Trade may authorize local authorities to purchase and sell any article or articles to which this act applies, subject to such conditions as the board may impose. This business is to be carried on on a commercial basis, however, and not at public expense.

It is reported that the Board of Trade has received a large number of replies from local authorities accepting their invitation to form local committees under the act; these committees are to consist of

not less than 7 nor more than 25 members, and the working classes must be adequately represented thereon. The act itself directs the inclusion of women on all local committees.

The first schedule issued by the board, of articles to be included, contains a list of all articles of wearing apparel, all household utensils and necessities, and all material required in building; the second schedule deals with all articles of food which are not controlled. At the end of about one month from date of the enactment of the law it was reported that 900 local committees had been formed, and that appeal tribunals were being organized at such a rate that the whole country would soon be covered.

Considerable criticism of the act has been expressed. It is regarded by some as an effort to deal with trivial offenders on the complaint of persons whose names will become known to the dealers, and who will thereby incur their dislike to an extent that may cause much inconvenience, particularly in small communities. On the other hand the fault may really lie back of the dealer complained of, who is only obtaining a reasonable profit based on the high price that he was compelled to pay. The machinery is felt to be poorly coordinated and unlikely to reach effectively the real seat of the trouble. However, it is admitted that a valuable effect may be produced by the fact that a penal provision is in existence, potentially available in case of discovered extortion. The life of the act is limited to six months unless specifically extended by provision of Parliament.

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## Summary of Labor Legislation in Great Britain in 1919.

**T**HE British Labor Gazette for January, 1920, publishes the following summary of labor legislation enacted in that country during the year 1919. It should be noted that the provisions of some of these measures have been given in previous issues of the MONTHLY LABOR REVIEW.

Two acts dealt with questions of wages. The Wages (Temporary Regulation) Extension Act (May 29)<sup>1</sup> extended for six months, until November 21, 1919, the provisions of the Wages (Temporary Regulation) Act, 1918. Until that date, therefore, the statutory obligation was imposed upon employers of paying not less than the "prescribed" rates of wages, which, broadly speaking, were the standard district rates existing at the time of the armistice. Compulsory reference to the interim court of arbitration at the request of one of the parties was also maintained in case of difference as to the existence or the amount of a prescribed rate; and in the case of women's wages, where the rate could not be easily ascertained, the Minister of Labor retained power to fix a prescribed rate by order. In addition, a rate might be substituted for the pre-

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<sup>1</sup> The dates given after the title of acts are those of the royal assent.

scribed rate by an award of the interim court of arbitration on compulsory reference, or by an agreement approved by the Minister of Labor; and these "substituted" rates might be extended by order to the whole of the industry concerned. The Industrial Courts Act<sup>1</sup> (November 20) extended until September 30, 1920, certain of the main provisions of the wages (temporary regulation) acts. Statutory sanction was given to the prescribed or substituted rate in existence at the expiration of the Wages (Temporary Regulation) Act, and to the decisions as to the existence and amount of such rates given by the industrial court established in place of the interim court of arbitration.

But, except in certain circumstances in the case of women, it is no longer possible to establish a new prescribed or substituted rate having statutory authority; and the power to extend by order substituted rates, fixed by agreement, to the whole of an industry has also ceased to exist.

The Industrial Courts Act provides also a permanent supplement to the existent machinery for conciliation and arbitration. Reference may be made to the industrial court, by agreement of both parties, in regard to any matter relating to or arising out of a dispute. This step may only be taken when other means of settlement have been brought into operation without success. Other forms of arbitration tribunals than the industrial court continue, and, if both parties to a dispute desire it, can still be utilized. The act also makes provision for the full information of the Government and the public as to the facts in a trade dispute, by authorizing the Minister of Labor to set up, in case of a dispute, actual or anticipated, a court of inquiry, with authority to demand evidence and to issue a report.

The problems of employment in the coal industry gave rise during the year to two acts. The Coal Industry Commission Act (February 26) provided that a commission<sup>2</sup> should be constituted to inquire into the position of and conditions prevailing in the industry, with special reference *inter alia* to wages, hours of work, cost of production and distribution, selling prices and profits, and the social conditions of colliery workers. The Coal Mines Act, 1919 (August 15), provided, in accordance with the interim report of the commission, for the reduction, from eight to seven, of hours of labor of coal mine workers below ground as from July 16, 1919, and makes provision, contingent upon the conditions of the industry, for a further reduction in 1921.

Two acts dealt with special problems arising from war conditions. The Restoration of Prewar Practices Act<sup>3</sup> (August 15) redeems the pledges given to trade-unions in return for their withdrawal of restrictive practices during the war. It requires owners of establishments to which the act applies—mainly those engaged on munitions work—to restore or permit the restoration of any trade rules, practices, or customs obtaining before the war which had been departed from during and in consequence of the war, and to permit the continuance of such trade practices for one year. The Disabled Men (Facilities for Employment) Act (July 22) enables arrangements to be made to relieve or indemnify employers in respect of the whole or part of any increase of expenditure arising from his liability to pay compensation in respect of accidents or industrial disease, where such increase is attributable to the employment of men disabled in the war. The act, which is administered by the Home Office, is given effect, in general, by agreements entered into with the insurance companies, who accept disabled men at the ordinary rates, and are indemnified by the Government against extra expenditure.

Four acts amended previous legislation providing for social services. The National Health Insurance Act, 1919 (August 15), increases from £160 to £250 per annum the rate

<sup>1</sup> This act was published in the MONTHLY LABOR REVIEW for February, 1920 (pp. 41-45).

<sup>2</sup> Articles dealing with the appointment and reports of this commission were published in the MONTHLY LABOR REVIEW for May, 1919 (pp. 109-114), August, 1919 (pp. 78-86), and October, 1919 (pp. 23-30).

<sup>3</sup> An account of the introduction of this bill, its important features, and the attitude of unskilled labor toward it, was given in the MONTHLY LABOR REVIEW for October, 1919 (pp. 30-35).



of remuneration for the purpose of exemption from insurance under the national health insurance acts. The National Insurance (Unemployment) Act (December 23) raises from 7s. to 11s. per week the rate of benefit payable to workpeople insured under the National Insurance (Unemployment) Acts, 1911-1918. The Workmen's Compensation (War Addition) Amendment Act<sup>1</sup> (December 23) increases the additional weekly sum from one-quarter to three-quarters of the amount of the weekly payment, and also extends the application of the act of 1917, as amended, to persons entitled to compensation under the acts of 1897 and 1900. The Old Age Pensions Act<sup>1</sup> (December 23) increases the weekly rates of old-age pensions, the new maximum being 10s. per week, and makes various other provisions and amendments to earlier acts.

The Checkweighing in Various Industries Act<sup>2</sup> (August 15) provides for "checking the weight or measurement of materials produced, handled, or gotten by workmen paid by weight or measure in certain industries," including the production or manufacture of iron or steel, the loading or unloading of goods into or from vessels, the getting of chalk or limestone from quarries, and the manufacture of cement and lime. Provision is made for the inclusion of other materials by regulation.

The Police Act (August 15) constituted the police federation, and prohibits members of police forces from being members of trade-unions.<sup>3</sup>

In addition to the acts mentioned above, bills have been introduced by the Minister of Labor providing for (a) the establishment of a maximum working week of 48 hours, subject to certain exceptions; (b) the constitution of a commission to inquire into and report on minimum time rates of wages; (c) the extension of the contributory scheme of unemployment insurance to substantially all persons falling within the health insurance scheme, except those engaged in agriculture and domestic service.<sup>4</sup> These bills are to be dealt with in the next session of Parliament.

<sup>1</sup> This act is noted in this issue of the MONTHLY LABOR REVIEW (p. 181).

<sup>2</sup> This act was noted in the MONTHLY LABOR REVIEW for February, 1920 (pp. 238, 239).

<sup>3</sup> This act applies to Great Britain only; a similar measure for Ireland was the Constabulary and Police (Ireland) Act, which received royal assent on November 20.

<sup>4</sup> In Ireland the bill applies only to workmen in the trades now insured against unemployment.

## LABOR ORGANIZATIONS.

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### Annual Convention of International Seamen's Union of America, January, 1920.

THE determination of the International Seamen's Union of America to defend and uphold the Seamen's Act against all attacks in Congress and in the courts, and to initiate an active counter propaganda against the campaign which the union alleges is being carried on to misrepresent and discredit the act, was strongly emphasized at the twenty-third annual convention of the union, which was held in San Francisco, January 12-22, of this year.<sup>1</sup> The convention went on record as being opposed to any and all amendments intended to bring about a repeal of the law and empowered its legislative committee to take any action it may deem necessary to preserve the law.

In his annual address to the convention, President Andrew Furuseth spoke of the struggles of the seamen to attain their present position and to defeat the campaign to nullify or repeal the Seamen's Act. Criticism was voiced of some of the rulings made by the Department of Commerce in the enforcement of the act, although Mr. Furuseth stated that "the trouble is more in the system that places the material of the merchant marine—the vessel—under the same department with the personnel—the seamen." He urged indorsement by the convention of the recommendation of the Secretary of Labor to Congress that jurisdiction of the personnel of the merchant marine be transferred to the Department of Labor, and also of the bill drafted by authority of the executive board of the union for submission to Congress providing for such transfer. The convention subsequently acted favorably upon a resolution to this effect and providing "that the legislative committee be instructed to consult with the Secretary of Labor, with the Masters, Mates, and Pilots of the United States, and the Marine Engineers' Benevolent Association to the end that we may, if possible, be united by the final form of the bill before it is introduced."

President Furuseth pointed out the potential danger to the seamen's act from the labor clause in the covenant of the League of Nations and to the hostile attitude of foreign shipowners. The friendly attitude of the organized seamen of Europe toward the act and the enactment of similar legislation in Scandinavian and other

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<sup>1</sup> Report summarized from *The Seamen's Journal*, San Francisco, Jan. 14, 21, 28, 1920.

maritime nations were referred to in showing the need of close affiliation with the International Seafarers' Federation in order to advance the interests of all seamen. He said:

To accomplish our purpose we must be associated with the seamen of the world and send delegates to the gatherings of the representatives of the seamen from different countries. We need them. They need us. We all need the strength that comes from knowing each other, and the help that we can give to each other industrially and legislatively. We must all become free, or we shall again all become slaves.

The convention later decided to send three delegates to the next conference of the International Seafarers' Federation which will be held in Europe this summer, and "to cooperate with the organized seamen of all countries in securing for them the rights conferred to seamen under the American flag by the Seamen's Charter of Freedom, the Seamen's Act."

#### Work of the Convention.

**M**ORE than two days of the convention's time was devoted to a thorough discussion of the problems confronting the seamen of America and at the conclusion of the deliberation a recommendation was made to all affiliated unions that, in view of the very unsettled industrial conditions, they give most careful and painstaking consideration to all movements either to advance or lower existing wages and working rules. Unqualified indorsement was given to the principle of the eight-hour working day for all seamen, and a resolution was passed approving the action of the Railroad Administration in recognizing the fundamental right of the 48-hour week and time and one-half as overtime for any work done in excess thereof, but protesting against the exclusion of that class of employees called "marine workers of floating equipment department." It was decided to work for the early enactment of the Federal seamen's compensation bill, now pending in the United States Senate, to urge Congress to abolish the present recruiting and training service of the Shipping Board and instead make every merchant ship a training vessel for American youths, and to favor private ownership and operation of merchant vessels "because Government ownership of ships has had the tendency to establish Government ownership of seamen." The convention disapproved of the Rowe bill which has passed the House and is now in the Senate and which would amend the law so that a person might become an able seaman after serving six weeks in a training vessel or by passing the examination required after six weeks of such training and serving nine months in a merchant vessel. The present law permits any person who has been at sea for one year to become an able seaman upon passing an examination proving his fitness for the rating. The proposed law was said to be "vicious," and in the resolution adopted it was held that "no man can learn an



able seaman's duties in such short time" and that "it is the real interest of the safety at sea and our ability to compete that the efficiency [of the seamen] be increased in place of being decreased."

The convention decided to establish permanent offices for the union at Washington, D. C., and to continue organizing work in the ports of the United States and Canada and particularly on the Great Lakes until every seaman and fisherman is a member of the union. The report of the secretary showed the membership of the union to have increased from 50,000 in 1918 to 75,000 in 1919.

By occupation groups the membership was reported as follows:

MEMBERSHIP OF INTERNATIONAL SEAMEN'S UNION, 1918 AND 1919, BY OCCUPATION GROUP.

Occupation group.	1918	1919
Cooks.....	7,200	9,400
Fishermen.....	9,600	8,600
Firemen.....	14,700	27,000
Sailors.....	18,500	30,000
Total.....	50,000	75,000

By districts, in 1919, 48,000 were credited to the Atlantic district, 18,000 to the Pacific district, and 9,000 to the Great Lakes district. Approximately 50 per cent of the membership at the beginning of 1920 was native born, while just prior to the war the native-born membership was only 20 per cent. Andrew Furuseth was reelected president and T. A. Hanson secretary-treasurer for the coming year. Philadelphia was selected as the place for holding the next convention.

## Activities of German Trade-Unions.

### Membership of General Trade-Union Federation.

**I**N SEPTEMBER, 1919, the German General Trade-Union Federation, the central organization of the Free (Social-Democratic) Trade-Unions, had a membership of approximately 6,400,000 organized in 54 federations.<sup>1</sup> Of these 5,327,000, or about five-sixth of the total, belong to 12 federations, each of which has 100,000 or more members.

FEDERATIONS OF THE GERMAN FREE TRADE-UNIONS WITH A MEMBERSHIP OF 100,000 OR OVER IN SEPTEMBER, 1919.

Federation.	Membership.	
	Before the war.	In September, 1919.
Metal workers.....	531,991	1,350,000
Factory workers.....	207,330	505,000
Transport workers.....	228,297	450,000
Mine workers.....	101,956	422,600
Railwaymen.....		420,000
Building trades.....	309,562	400,000
Agricultural workers.....	22,531	400,000
Textile workers.....	133,034	370,000
Salaried employees.....	35,219	350,000
Wood workers.....	192,465	310,000
Municipal workers.....	54,522	250,000
Tailors.....	49,145	100,000
Total.....	1,865,962	5,327,000

With respect to the membership figures given in the preceding table it should be noted that the railwaymen's federation was not established until July, 1916, and that the salaried employees' federation was formed in 1919 by the amalgamation of two other federations.

Commenting on the rapid growth of the membership of the Free Trade-Unions an article in *Correspondenzblatt*<sup>2</sup> says:

German Free Trade-Union membership is making rapid strides from the sixth into the seventh million. Considerably more than half of the members are persons who have joined a trade-union for the first time. These must be trained to be good trade-unionists. This training has for many years been the task of the trade-unions, but it has never been so big and difficult a task as it is now. Hitherto the old members were in the majority in the local unions, the district councils, federations, and conferences. Now the new members are in the majority. The minority has to teach the majority. The new members have been in the trenches for four years, and their experiences have left a mark. They are not shy and retiring as new members were in the old days. The characteristic of the masses of the workers to-day is a deep-seated feeling of bitterness and mistrust toward everything and everybody. All this must be taken into consideration. New members must not be called "November Socialists" and must not be referred to as "those who have just crept into the organization." The youthfulness of the new members must not constitute a cause of reproach.

<sup>1</sup> *Correspondenzblatt der Generalkommission der Gewerkschaften Deutschlands*. Berlin, Sept. 20, 1919.

<sup>2</sup> *Correspondenzblatt*. Berlin, Sept. 13, 1919.

## Metal Workers' Federation.

THE proceedings at the general conference of the Metal Workers' Federation held at Stuttgart in October were of great importance for the development of industrial conditions in Germany.<sup>1</sup> For the first time in the history of the federation the delegates belonging to the Independent (radical) Socialist Party gained the upper hand in this, the largest German trade-union federation, and appointed its representatives as leaders. This majority has declared itself against joint industrial leagues (*Arbeitsgemeinschaften*) of representatives of trade-unions and employers' associations. Its manifesto states that "the general conference recognizes no form of negotiations with employers other than those rendered necessary by industrial disputes." An Industrial Workers' Federation (*Industrieverband*), composed of all manual and brain workers in the metal industry, is to be formed, to continue the fight for the possession of the means of production and the abolition of capitalism.

The passing of the leadership of the Metal Workers' Federation into the hands of the Independents means, it is stated, that the joint industrial league in the metal industry has broken up, and that if this process is repeated in other trade-union federations, the existence of the central industrial league of workers' and employers' organizations will be threatened. The movement which aims at industrial dictatorship through the works' councils is undermining the practical beginnings made by the joint industrial leagues toward giving the workers an effective share in the control of production. The manifesto recognizes only those conferences with employers which are necessitated by industrial disputes, and excludes cooperation in productive tasks. The fact of the continued existence of capitalistic enterprise is thus recognized, but organized workers are deprived of the measure of participation in the control of production which they had gained. These leaders, it is added, are evidently afraid of developing the joint industrial leagues and cooperating with the employers. But they will find, after some practical experience as leaders of the unions, that they are obliged to cooperate in the control of production. The idea of the industrial joint league will be resuscitated in one form or another by its present opponents.

The *Metallarbeiter-Zeitung*<sup>2</sup> publishes the following excerpts from the new by-laws of the Metal Workers' Federation operative as from October 13, 1919:

*Strike benefit.*—First-class members (men), 5 marks<sup>3</sup> per diem, or 30 marks weekly; second class (women 16 years of age and over), 3 marks, or 18 marks weekly; third

<sup>1</sup> Vorwärts. Berlin, Oct. 25, 1919.

<sup>2</sup> Metallarbeiter-Zeitung. Stuttgart, Nov. 15, 1919.

<sup>3</sup> Owing to fluctuations in exchange value conversions into United States money are not made. The normal par value of the mark is 23.8 cents, and of the pfennig 0.238 cent.



class (children under 16 years of age), 2 marks, or 12 marks weekly. For their wives married members of the first class are to receive in addition 1 mark per diem, or 6 marks weekly, and of the second class, 50 pfennigs, or 3 marks. For each child at home, 50 pfennigs daily, or 3 marks weekly, is to be paid. Should the person have been a member for less than 26 weeks the strike benefit is to be: First class, 18; second class, 15; third class, 9 marks weekly; and for wives and children at home, 3 marks weekly. Operative as from December 28, 1919.

*Initiation fee and contributions.*—The initiation fee has been fixed at 1 mark for adult male members and at 50 pfennigs for women and for boys under 16 years of age. The weekly contribution is to be 1.20 marks for men, 60 pfennigs for women of 16 years and over, and 30 pfennigs for boys and girls under 16 years of age.

*Traveling and removal benefit.*—The traveling benefit is to be 2 marks per day. The removal benefit varies according to length of membership. Membership of from 52 to 156 weeks and removal to a locality distant 25 to 150 kilometers (15.5 to 93.2 miles) is allowed 40 marks, and above 150 kilometers (93.2 miles) 60 marks in the first class; in the second class, 20 and 30 marks, respectively, are allowed. When the period of membership exceeds 11 years, the amounts allowed for the same distances rise to 120 and 180 marks in the first class and 60 and 90 marks in the second class.

*Unemployment and sick benefit.*—Unemployment and sick benefit is granted for 20 weeks at rates varying according to length and class of membership. In class 1 the weekly benefit varies between 7 and 12 marks, in class 2 between 4.75 and 8 marks, and in class 3 between 3.50 and 6 marks.

*Death benefit.*—Death benefit is paid according to class and length of membership, as follows: Fifty-two weeks' membership entitles to 60, 30, and 13 marks, respectively, and after 11 years' membership the benefit reaches a maximum of 200, 100, and 50 marks.

*Notice for offensive action.*—Notice of at least one month must be given before any offensive action is taken. No stoppage of work may take place until the matter in dispute has been laid before the conciliation authority and not unless three-fourths of the members affected have voted for such cessation of work.

## LABOR BUREAUS.

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### Organization of Massachusetts Department of Labor and Industries.

THE so-called consolidation act (Mass. Gen. Acts, 1919, ch. 350) provided for the organization in 20 departments of all of the executive and administrative functions of the Commonwealth, except such as pertain to the governor and council and such as are exercised and performed by officers serving directly under the governor and council. The functions of the new department of labor and industries (one of the 20 departments established by the act) comprise those formerly vested in the board of labor and industries, the bureau of statistics (in part), the board of conciliation and arbitration, the minimum wage commission, the commissioner of standards, and the surveyor of lumber.

The act provides that the department shall be under the supervision and control of a commissioner, to be known as the "commissioner of labor and industries," an assistant commissioner, who may be a woman, and three associate commissioners, one of whom shall be a representative of labor, and one a representative of employers of labor, all of whom shall be appointed by the governor with the advice and consent of the council. The commissioner is the executive and administrative head of the department and has charge of the administration and enforcement of all laws, rules, and regulations which it is the duty of the department to administer and enforce. He is also required (among other duties) to prepare, for the consideration of the associate commissioners, rules and regulations, in accordance with existing law, for the carrying out of the provisions of this act relative to the department, which rules must first be approved by the associate commissioners before becoming effective. In addition to acting in an advisory capacity the associate commissioners constitute a board to be known as the "board of conciliation and arbitration," which has the authority and exercises the functions heretofore vested in the board of conciliation and in the minimum wage commission, except as to matters of an administrative nature.

The act authorizes the commissioner to organize the department in such divisions as he may from time to time determine and to assign the officers and employees of the department thereto, and authorizes the commissioner and associate commissioners, with the approval of the governor and council, to appoint and fix the salaries of not

more than five directors, each of whom shall be assigned to take charge of a division of the department. The plan of organization as at present in effect and its directing personnel are as follows:

Commissioner of Labor and Industries: Gen. E. Leroy Sweetser.

Assistant Commissioner: Miss Ethel M. Johnson.

Associate Commissioners: Mr. Herbert R. Wasgatt; Mr. Edward Fisher; Mr. Samuel Ross.

Directors:

Division of Industrial Safety: Mr. John P. Meade, director.

Division of Statistics: Mr. Roswell F. Phelps, director.

Division of Standards: Maj. Francis Meredith, director.

United States Employment Service: Gen. E. Leroy Sweetser, federal director; Roswell F. Phelps, assistant federal director.

In the process of consolidation the function of the several boards, etc., now vested in the department of labor and industries were transferred in toto to the new department, except in the case of the former bureau of statistics, whose functions were distributed among three departments, as follows:

1. The duties of collecting, arranging, and publishing statistical information relative to the commercial and industrial conditions of the people, and the productive industries of the Commonwealth usually designated as the statistics of labor and manufactures, and the establishment and maintenance of public employment offices and all other duties not otherwise provided for by the act, were transferred to the department of labor and industries (section 69) and are now performed by the division of statistics of that department.

2. The duty of taking the decennial census of the Commonwealth and of collecting, compiling, and publishing information in connection therewith, and the duty of making the enumeration of summer residents of certain towns were transferred to the secretary of the commonwealth (section 25).

3. The duties of compiling municipal statistics, of auditing of municipal accounts, and of certifying notes of towns and districts were transferred to the department of corporations and taxation (section 52).

Although the former minimum wage commission, as such, was abolished by the consolidation act, its functions are now vested in the associate commissioners of the new department of labor and industries, who are authorized to establish wage boards, enter decrees, and issue special licenses as formerly done by the commission. When acting in this capacity, the associate commissioners and the assistant commissioner, who is in immediate charge of minimum wage matters, direct the work of the division of minimum wage.

With reference to the division of standards, it should be stated that the term "standards" has reference to weights and measures



and not to the industrial code. The functions of this division now embrace those of the former commissioner of standards and surveyor general of lumber.

Under the consolidation act the industrial accident board, which administers the workmen's compensation act in Massachusetts, is continued without change as a department entirely separate from the department of labor and industries, and certain former joint functions of these two departments are now vested in the latter department. Thus the law provides that the duties of factory inspection and accident prevention shall be performed by the department of labor and industries. The reporting of accidents, however, is made to the department of industrial accidents, which takes over the functions of the industrial accident board, and this department is the only source from which accident experience is available.

The following sections of the consolidation act (Mass. Gen. Acts, 1919, chap. 350, secs. 69-78) refer specifically to the organization of the department of labor and industries:

SECTION 69. The board of labor and industries, existing under authority of chapter 726 of the Acts of 1912 and acts in amendment thereof and in addition thereto; the board of conciliation and arbitration, existing under authority of chapter 514 of the Acts of 1909, as amended by chapter 681 of the Acts of 1914, and acts in amendment thereof and in addition thereto; the minimum wage commission existing under authority of chapter 706 of the Acts of 1912, and acts in amendment thereof and in addition thereto; the office of commissioner of standards, existing under authority of chapter 534 of the Acts of 1907 and of chapter 218 of the General Acts of 1918; and the office of surveyor general of lumber, existing under authority of chapter 60 of the Revised Laws, are hereby abolished. All the rights, powers, duties and obligations of the said boards, commissions and offices, or of any member or official thereof, and those of the bureau of statistics, or the director thereof, with respect to collecting, arranging, and publishing statistical information relative to the commercial and industrial condition of the people, and the productive industries of the Commonwealth, usually designated as the statistics of labor and manufactures, and with respect to the establishment and maintenance of public employment offices and with respect to all other matters not otherwise provided for by this act, are hereby transferred to and shall hereafter be exercised and performed by the department of labor and industries, established by this act, which shall be the lawful successor of said boards, commissions, and offices and of said bureau of statistics, and the director thereof, with respect to the said rights, powers, duties, and obligations. The powers and duties conferred and imposed upon the industrial accident board by section 18 of Part IV of chapter 751 of the Acts of 1911 are also transferred to and shall hereafter be exercised and performed by said department.

SEC. 70. The department of labor and industries shall be under the supervision and control of a commissioner, to be known as the commissioner of labor and industries, an assistant commissioner, who may be a woman, and three associate commissioners, one of whom shall be a representative of labor and one of whom shall be a representative of employers of labor, all of whom shall be appointed by the governor, with the advice and consent of the council. The first appointment of the commissioner and assistant commissioner shall be for the term of three years, and of the associate commissioners for the terms of one, two and three years, respectively. Thereafter as the terms expire the governor shall in like manner appoint the said commissioners for terms of three

years, shall fill any vacancy for the unexpired term, and may, with the consent of the council, remove any commissioner. The commissioner shall receive such annual salary not exceeding \$7,500, and the assistant commissioner and associate commissioners such annual salary, not exceeding \$4,000 each, as the governor and council may determine.

SEC. 71. The commissioner shall be the executive and administrative head of the department. He shall have charge of the administration and enforcement of all laws, rules, and regulations which it is the duty of the department to administer and enforce, and shall direct all inspections and investigations except as is otherwise provided herein. He may organize the department in such divisions as he may from time to time determine, and may assign the officers and employees of the department thereto. He shall prepare for the consideration of the associate commissioners, rules and regulations, in accordance with existing law, to carry out the provisions of this act relative to the department. All rules and regulations so prepared shall take effect, subject to the provisions of chapter 307 of the General Acts of 1917 where applicable, when approved by the associate commissioners, or upon such date as they may determine. The commissioner may designate an associate commissioner to discharge the duties of the commissioner during his absence or disability.

SEC. 72. The associate commissioners shall constitute a board to be known as the board of conciliation and arbitration, which shall have the authority and exercise the functions heretofore vested in the board of conciliation and arbitration and in the minimum wage commission, except as to matters of an administrative nature, and in pursuance of the said authority shall, if they deem it necessary, investigate immediately the circumstances of any industrial dispute which arises, shall establish wage boards and review their reports, and may issue special licenses under the provisions of section 9 of chapter 706 of the Acts of 1912. In all investigations and proceedings conducted by said associate commissioners they shall have authority to summon witnesses, to administer oaths, to take testimony and to require the production of books and documents. In any controversy referred to the board on a joint application under any arbitration agreement they shall employ special experts at the request of either party. One such expert shall be selected from a list furnished by each party to the controversy. The expense of such experts shall be borne by the Commonwealth. They shall be assigned such assistants from the officers and employees of the department as the commissioner and they shall from time to time determine. The fees of witnesses before the associate commissioners for attendance and travel shall be the same as those of witnesses before the superior court, and shall be certified and paid in accordance with the provisions of section 15 of chapter 514 of the Acts of 1909, and acts in amendment thereof and in addition thereto.

SEC. 73. In all matters relating specifically to women and minors the assistant commissioner shall have and exercise such duties and authority as may be prescribed by the commissioner with the approval of the associate commissioners.

SEC. 74. The commissioner and associate commissioners may, with the approval of the governor and council, appoint, and fix the salaries of, not more than five directors, and may, with like approval, remove the directors. Each director shall be assigned to take charge of a division of the department. The commissioner may also, subject to the civil service law and rules, where they apply, employ and remove such experts, inspectors, investigators, clerks, and such other assistants as the work of the department may require, and, subject to the provisions of chapter 228 of the General Acts of 1918, and the rules and regulations established thereunder, and to the approval of the governor and council, where that is required by law, fix the compensation of the said persons. The commissioner may require that certain inspectors in the department, not more than seven in number, shall be persons qualified by training and experience in matters relating to health and sanitation.

SEC. 75. All directors, inspectors, and other permanent employees of the department shall devote their whole time to the affairs of the department, and all directors and inspectors, and such other employees as may be designated by the commissioner, shall, before entering upon their duties, be sworn to the faithful performance thereof. Inspectors shall have the police powers granted by existing law to the inspectors of the board of labor and industries, except that those assigned to exercise the functions now exercised by the commissioner of standards shall have the powers now possessed by inspectors appointed by the commissioner of standards.

The number of inspectors employed by the department shall not, at first, exceed the number of inspectors in the service of the boards, commissions, and bureaus hereby abolished, and shall not thereafter be increased without the approval of the governor and council. The commissioner and associate commissioners shall determine from time to time how many of the inspectors employed shall be women. Section 10 of chapter 726 of the Acts of 1912 shall apply to inspectors appointed under the provisions of this section.

SEC. 76. The commissioner and associate commissioners may appoint committees, on which employers and employees shall be represented, to investigate and recommend rules and regulations, and changes in existing rules and regulations, within the scope of the powers and duties of the department.

SEC. 77. All the rights, powers, duties, and obligations of the commissioner of standards and the surveyor general of lumber shall be assigned to a division of the department, and the director in charge of said division shall be known as the director of standards. He shall exercise the functions of the commissioner of standards and the surveyor general of lumber, and shall perform such other duties as may be assigned to him by the commissioner.

SEC. 78. Any person affected by an order, rule, or regulation of the department may, within such time as the associate commissioners by vote may fix, which shall not be less than 10 days after notice of the order, or the taking effect of the rule or regulation, appeal to the associate commissioners, who shall thereupon grant a hearing, and after the hearing may amend, suspend, or revoke such order, rule, or regulation. The commissioner may, pending such hearing, grant a temporary suspension of the order, rule, or regulation appealed from. Any person aggrieved by an order approved by the associate commissioners may appeal to the superior court: *Provided*, That the appeal is taken within 15 days after the date when the order is approved. The superior court shall have jurisdiction in equity upon such appeal, to annul the order, if it is found to exceed the authority of the department, and upon petition of the commissioner, to enforce all valid orders issued by the department. Nothing herein contained shall be construed to deprive any person of the right to pursue any other lawful remedy.



## CONCILIATION AND ARBITRATION.

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### Adjustment of Industrial Disputes in Kansas and Colorado.

#### Kansas Court of Industrial Relations.

**T**HE action of the Legislature of Kansas in January of this year in establishing a special tribunal as a court of industrial relations has attracted widespread attention. The court consists of three judges appointed by the governor, with the advice and consent of the senate, for three-year terms, and was immediately (Feb. 2) organized. This court is given the powers previously held by the State public utilities commission, which is abolished. However, its principal powers, from the standpoint of immediate interest, relate to the regulation of designated classes of employments, industries, etc., "declared to be affected with a public interest and therefore subject to supervision by the State." Included are the manufacturing of food products and clothing, and processes connected therewith; the mining or production of fuel; transportation, and all public utilities and common carriers as defined by existing statutes of the State.

The court has power to make investigations, serve process, take testimony, and adopt rules and regulations to govern its own proceedings. Appeal lies to the supreme court from its findings. The public welfare is declared to require continuity and efficiency in the operation of the industries, etc., named; the willful hindering, delay, limiting, or suspension of such operations are therefore declared to be contrary to the purpose of the act. The court may act on its own initiative, or upon the complaint of either party to a controversy, or of ten citizen taxpayers of the affected community, or of the attorney-general of the State. Investigation may extend to the conditions surrounding the workers, their wages, returns to capital, the rights and welfare of the public, "and all other matters affecting the conduct of said industries, employments, public utilities, or common carriers."

The court is authorized to order any changes necessary in the matter of working and living conditions, hours of labor, rules and practices, and a reasonable minimum wage or standard of wages. Appeal may be taken within 10 days to the supreme court. If after 60 days' compliance the order is found to be unjust, unreasonable, or impracticable, the aggrieved party may apply for a modification,

and a hearing shall thereupon be had and the court of industry may modify its orders for cause shown.

Enforcement is by process issuing from the supreme court on proceedings by the industrial court. Persons willfully violating the provisions of the act or any valid order of the court are liable to fine not exceeding \$100 or imprisonment not exceeding one year, or both. Officers of corporations or of labor unions who use their official positions willfully to influence or compel violations are guilty of a felony and may be punished, upon conviction thereof, by a fine not exceeding \$5,000, or imprisonment at hard labor for not exceeding two years, or both. In case production or operation is suspended, the court may take proceedings for the taking over and operation of the industries or work affected. In any case a fair wage is to be paid the workers and a fair return allowed the owners.

It is an offense to do or perform any forbidden act, or fail or refuse to perform any act enjoined or directed by the court, acting either singly or in confederation with others; or to induce or intimidate any employer or worker to violate the orders of the court whether negatively or positively. Picketing, threats, abuse, or other forms of intimidation are unlawful in connection with the employments, industries, etc., governed by the act.

Unions of workers are recognized, as is the right of collective bargaining. Individual workers are guaranteed freedom of action in making or terminating contracts, but it is unlawful for individuals to conspire with other persons to quit employment for the purpose of hindering, delaying, or interfering with the operation of industries covered by the act. Employees testifying as witnesses or otherwise active in securing the attention or action of the court may not be discharged or discriminated against because of such action.

This is the most comprehensive attempt yet made to protect the public in cases of industrial disputes likely to affect its interests. The act has attracted attention in other States and in Congress, but it is too soon to announce any definite results under it. One point of interest in connection therewith is the establishment of a minimum wage for men. Kansas, in common with a number of other States, chiefly western, has a commission charged with the fixing of a minimum wage for women and for minors; but no State has thus far sought to fix a minimum wage for adult males. An initiative act has been proposed and filed with the Secretary of State, in the State of Oregon, looking toward the fixing of a minimum wage for both men and women; but the house resolutions committee of the State legislature directed its chairman to draft a resolution expressing the opposition of the legislature to the proposed law.

## Colorado Industrial Commission.

THE nearest approach to the Kansas statute is an act of the State of Colorado, enacted in 1915, creating an industrial commission, and conferring upon it certain powers as to the adjustment of industrial disputes. This act is patterned to some extent after the Canadian Industrial Disputes Acts, and makes it unlawful for employers to declare or cause a lockout, or for employees to go on a strike prior to or during an investigation or arbitration of a dispute. This act received its first test in this regard during the coal strike of November last, a restraining order against the proposed strike of November 21 being issued under it by the District Court of the City and County of Denver. In obedience thereto the district officers of the miner's union recalled their strike order, resulting, it is claimed, in a production of coal more nearly normal than in any other State of that section of the country. However, the union attacked the law on the ground of its claimed unconstitutionality, and some technical questions as to its enactment. The act limits its application, at least in the case of lockouts, to industries "affected with a public interest." In its later deliberations the district court, without suggestion from either party, injected the test of public interest into the case in hand, and ruled that underground mines are not affected with a public interest and fall outside the act. The case has been carried to the supreme court on a writ of error for a decision on this subject, as well as on the constitutional questions, and it will be of interest to know what conclusion shall be reached by the court on these points. However, it seems obvious enough that coal mines are affected with a public interest, so that the main concern is with the validity of the act that undertakes to prevent the cessation of industrial operations on grounds of the public concern until suitable time for investigation has elapsed.

Though this first legal process for enforcement has thus been opposed, the commission reports results of great value flowing from the operations of the law.<sup>1</sup> Since its enactment in 1915, "this State has been comparatively free from labor trouble, and has been absolutely free from any protracted strike; and bloodshed, violence, and the destruction of property have been unknown."

The law requires 30 days' notice before a strike or lockout is actually engaged in; and this provision, "against which violent criticism has been directed, has saved the situation innumerable times." This period permits opportunity for conciliatory efforts, which have many times been successful. If this fails, informal conferences often afford a means of arriving at an understanding; while in other cases, formal hearings and awards are resorted to. From March, 1917, when the

<sup>1</sup>Second Report of the Industrial Commission of Colorado, 1917-18, pp. 98-121.



present commission took office, up to November 1, 1918, the commission handled controversies involving 1,430 employers and 28,888 employees. There were 196 cases reported to the commission, of which 145 were reported with the statutory 30 days' notice; 32 resulted in strikes of from 1 to 65 days' duration, but all were settled, the men returning to work. The record is believed to show "ample justification for the enactment and continued existence of the law," which all interests "are coming to view as a step in the right direction."

## IMMIGRATION.

### Opinion of Secretary of Labor With Regard to Membership in Communist Party.

THE deportation of one Englebrert Preis, an Austrian, alleged to be a member of the Communist Party of America and liable to deportation under the act of October 16, 1918, having arisen, the Secretary of Labor, Hon. W. B. Wilson, rendered the following opinion approving the recommendation of the Commissioner General of Immigration that Preis be sent back to his native country:

*In re Englebrert Preis.*

Age, 31; native of Austria; entered the United States at Port Huron, Mich., on November 13, 1915, having arrived in Quebec by S. S. *Scotan*, June 14, 1914. This is a case arising under the provisions of the act of October 16, 1918.

It is alleged that the alien is a member of the Communist Party of America, which is affiliated with the Communist International. The alien admits membership in the Communist Party of America, and that it is affiliated with the Communist International. The sole question, therefore, to be determined by the Secretary of Labor is: Is the Communist Party of America such an organization as is described in the act of October 16, 1918, membership in which makes an alien liable to deportation. The language of the act applicable to this particular case is as follows:

SECTION 1. \* \* \* aliens who are members of or affiliated with any organization that entertains a belief in, teaches, or advocates the overthrow by force or violence of the Government of the United States. \* \* \*

SEC. 2. \* \* \* shall, upon the warrant of the Secretary of Labor, be taken into custody and deported in the manner provided in the immigration act of February 5, 1917.

It will be observed that belief in, teaching, or advocating the overthrow of the Government of the United States is not alone sufficient to bring any organization within the scope of the act. There must in addition be a belief in, teaching, or advocacy of force or violence to accomplish the purpose. Bearing that in mind we may proceed to an examination of the facts.

The manifesto and program and constitution of the Communist Party of America and the manifesto of the Communist International are submitted in evidence and their authenticity admitted. The

constitution of the Communist Party (see p. 19 of the manifesto) requires that—

SEC. 2. Applicants for membership shall sign an application card reading as follows:

The undersigned after having read the constitution and program of the Communist Party, declares his adherence to the principles and tactics of the party and the Communist International; agrees to submit to the discipline of the party as stated in its constitution and pledges himself to engage actively in its work.

An examination of the documents submitted clearly demonstrates the fact that it is the purpose of the Communist Party to overthrow the Government of the United States. There are many statements that might be quoted showing that purpose. The two following are typical. On page 9 of the manifesto and program the statement is made:

Communism does not propose to "capture" the bourgeoisie parliamentary State, but to conquer and destroy it.

And again on the same page:

The proletarian class struggle is essentially a political struggle. \* \* \* The objective is the conquest by the proletariat of the power of the State.

Many other statements of similar purport are to be found in the same document. After having found that it is the purpose of the Communist Party to conquer and destroy the Government of the United States the next point of inquiry is as to how the conquest is to take place.

It is apparent that the Communist Party does not seek to attain its objective through the parliamentary machinery of this Government, established by, and operated under, the Constitution. That is made sufficiently clear by the following excerpt from page 15 of the manifesto referred to:

(b) Participation in parliamentary campaigns, which in the general struggle of the proletariat is of secondary importance, is for the purpose of revolutionary propaganda only.

And again from pages 9 and 10 of the same document:

In those countries where the conditions for a workers' revolution are not yet ripe, the same process will go on. The use of parliamentarism, however, is only of secondary importance.

And further on page 10:

The parliamentarism of the Communist Party performs a service in mobilizing the proletariat against capitalism, emphasizing the political character of the class struggle.



### Communist Party's Attitude Toward Strikes.

**T**HE parliamentary processes established by our Government are to be discarded or used for propaganda purposes only and other means adopted for overthrowing the Government of the United States. These means are stated at considerable length and frequently reiterated, seemingly for purposes of emphasis. The conquest of the power of the State is to be accomplished by the mass power of the proletariat.

Strikes are to be broadened and deepened, making them general and militant, and efforts made to develop their revolutionary implications. The strike is to be used not simply as a means to secure redress of economic wrongs, but as a means through which the Government may be conquered and destroyed. A few excerpts from the Communist Party and Communist International manifestos will make these statements evident.

Thus on page 10 of the manifesto and program of the Communist Party of America is the following:

The conquest of the power of the State is accomplished by the mass power of the proletariat. Political mass strikes are a vital factor in developing this mass power, preparing the working class for the conquest of capitalism. The power of the proletariat lies fundamentally in its control of the industrial process. The mobilizing of this control against capitalism means the initial form of a revolutionary mass action that will conquer the power of the State.

And again, on page 11 of the same document:

Mass action is industrial in its origin, but it acquires political character as it develops fuller forms. Mass action, in the form of general political strikes and demonstrations, unites the energy and forces of the proletariat, brings proletarian mass pressure upon the bourgeois State. The more general and conscious mass action becomes, the more it antagonizes the bourgeois State, the more it becomes political mass action. Mass action is responsive to life itself, the form of aggressive proletarian struggle under imperialism. Out of this struggle develops revolutionary mass action, the means for the proletarian conquest of power.

And further, on page 12 of the same document:

Strikes of protest develop into general political strikes and then into revolutionary mass action for the conquest of the power of the State. Mass action becomes political in purpose while extra-parliamentary in form; it is equally a process of revolution and the revolution itself in operation.

Then, on page 16:

The Communist Party shall participate in mass strikes, not only to achieve the immediate purposes of the strike, but to develop the revolutionary implications of the mass strike.

And then making the purpose still more clear, we have the following from page 30 of the manifesto of the Communist International, with

which the Communist Party of America is affiliated and whose manifesto is accepted as part of the policy of the party:

The revolutionary era compels the proletariat to make use of the means of battle which will concentrate its entire energies, namely, mass action, with its logical resultant, direct conflict with the governmental machinery in open combat. All other methods, such as revolutionary use of bourgeois parliamentarism, will be of only secondary significance.

From these quotations and numerous other statements in the manifesto, not here quoted, it is apparent that the Communist Party of America is not merely a political party seeking the control of affairs of State, but a revolutionary party seeking to conquer and destroy the State in open combat. And the only conclusion is that the Communist Party of America is an organization that believes in, teaches, and advocates the overthrow by force or violence of the Government of the United States.

It does not devolve upon the Secretary of Labor officially to determine whether Congress was wise in creating the law, or the Communist Party wise in creating the facts. It is his duty to apply the law to the facts as he finds them. It is mandatory upon him to take into custody aliens who are members of this organization and deport them in the manner provided for in the immigration act of February 5, 1917.

Your<sup>1</sup> memorandum of January 17, 1920, recommending that the Department issue its warrant for the deportation of Englebrert Preis, such deportation to be to Austria, at Government expense, is hereby approved.

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<sup>1</sup> Refers to the Commissioner General of Immigration.

## BOOK REVIEWS.

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FISHER, IRVING. *Stabilizing the dollar. A plan to stabilize the general price level without fixing individual prices.* New York, The Macmillan Co., 1920. 324 pp.

This book is a most valuable contribution to the discussion of prices. The author presents the facts as to price fluctuations, discusses the causes of changing commodity prices and price levels, points out the evils resulting from unstable prices, and presents his remedy for fluctuating prices and the evils growing therefrom.

The facts as to changing prices of individual commodities and all commodities taken collectively are determined now with great accuracy by means of index numbers. The author mentions all important index numbers in use at present and pays the United States Bureau of Labor Statistics the compliment of citing its index numbers as the best now being published. By means of index numbers it is clearly demonstrable that price levels all over the world have been steadily rising since 1897.

In chapter 2 the author discusses the causes of fluctuating price levels in different countries, and after a careful examination of all the available evidence reaches the conclusion that the chief cause operating to change price levels is the instability in the value of the money unit. By plotting the price curves of several different commodities in terms of commodities in general, he determines that Brussels carpets and eggs are much more stable in value than gold, which is the measure of prices in all the important industrial and commercial countries of the world to-day. Of course, the author does not take account of the violent seasonal fluctuations in the prices of eggs. As a matter of fact, eggs would make a very much worse measure of prices than gold. On the other hand, if the world had used Brussels carpets as the basis of its monetary and banking systems, price fluctuations would have been less violent than they have been during the period from 1890 to the present time.

In chapter 3 the author points out the evils resulting from fluctuating price levels. He shows that increasing prices do not mean general impoverishment but do mean the impoverishment of some and the enrichment of others. Contracts, although guaranteed inviolability in the Constitution of the United States, are violated and upset every year because of changes in the value of money, the medium through which settlements are made. Lowered real wages, because of increased prices of the necessities of life, lead to industrial unrest and the advocacy of violent measures to remedy this condition. The falling prices which culminated in the panic of 1893 and the following depression continuing until 1897 produced perhaps an equal amount of discontent, but in different quarters and for different reasons. The discontent of the 1880's and 1890's was principally a farmer's discontent against the holders of mortgages on his farm and the "bloated bondholders." The discontent to-day is leveled chiefly at the profiteers who are accused of being responsible for high prices. As a matter of fact, the profiteer is a result rather than a cause of high prices. He has been able to make large profits because prices have risen so sharply and continuously.

Chapter 4 summarizes briefly some of the remedies that have been proposed to cope with the high and ever-rising prices of the present. These proposed remedies range from parcels post to Government ownership and from housekeepers' market clubs to the single tax. The author then points out that the dollar is the only unit as yet unstandardized. The dollar is supposed to be a standard of value. In reality, however, it is merely a standard of weight. Prof. Fisher then presents his well-known plan for converting our present monetary unit from a fixed weight of gold of fluctuating value to a standard of fixed value of fluctuating weight. Briefly, the plan is to



retire from circulation all gold coins and to issue for circulation gold certificates. If the prices of commodities collectively increase, as shown by the official index number, the weight of gold represented by each gold certificate in circulation is increased accordingly so that the prices are speedily brought down to approximately their former level. If, on the other hand, the prices of commodities in general should fall, the gold content of the uncoined gold dollars is decreased proportionately and automatically, thus bringing prices up again to approximately their former level. The technical details of the plan are given in Appendix I. Appendix II gives the objections that have been raised to the plan. Appendix III presents some alternative plans that have been suggested.

An excellent bibliography of the more important index numbers now extant and the principal writings on index numbers is given in Appendix VI.

The book is admirably arranged for ready reference or for use as a text book in college classes. A short table of contents is given followed by an analytical table of contents which gives all the more important points discussed in the volume. At the beginning a general summary is presented followed by a more detailed summary by sections. The man who is pressed for time can get a very accurate understanding of the arguments and conclusions by reading the 20 pages of this summary by sections.

## PUBLICATIONS RELATING TO LABOR.

### Official—United States.

ALABAMA.—*State Mine Inspectors. Annual report of coal mines, 1918. Birmingham, 1919. 87 pp.*

The coal production in 1918 was 19,521,840 short tons, a decrease of 891,971 tons as compared with 1917. The coke tonnage was 4,344,726 short tons, a decrease of 523,872 tons compared with 1917. In 1918, 26,341 men were employed in and around the mines as against 27,921 in 1917; the decrease representing approximately the industry's contribution to the Army. The coal produced per employee in 1918 was 741 tons as compared with 731 tons in 1917. There were 110 fatalities against 108 in 1917. During the year 932 regular inspections and 146 visits to investigate fatal and nonfatal accidents were made.

DISTRICT OF COLUMBIA.—*Minimum Wage Board. Wages of women in hotels and restaurants in the District of Columbia. [Washington, October 10, 1919.] 23 pp. Bulletin No. 3.*

For an account of the conference which resulted in recommendation of a minimum wage for women employed in hotels and restaurants see pages 131 to 136 of this issue of the MONTHLY LABOR REVIEW.

ILLINOIS.—*Department of Mines and Minerals. Thirty-seventh annual coal report, 1918. Springfield, 1918. 306 pp. Illustrated.*

Compared with 1917 the report shows an increased production of 10,995,942 tons, an increase of 157 in the number of mines, an increase of four days in working time, and an increase of 10,479 employees. The total number of fatalities was 259, an increase of 52, or more than 25 per cent. A loss of 30 or more days resulted from the injury of each of 2,161 workers—an increase of 527, or 32.25 per cent over the preceding year. Falling roof and sides were responsible for 100 deaths and 713 serious injuries, and pit cars for 46 fatal and 516 nonfatal injuries.

INDIANA.—*Employment Commission. Some explanations concerning junior section, Indiana free employment service. Suggested phases of vocational guidance for minors. Indianapolis, August 1, 1919. 16 pp. Bulletin No. 1.*

KANSAS.—*Court of Industrial Relations. An act creating the Court of Industrial Relations, defining its powers and duties. Topeka, 1920. 14 pp.*

This act is discussed in an article on pages 214 to 217 of this issue of the MONTHLY LABOR REVIEW.

LOUISIANA.—*Department of Education. Plan for vocational education (prepared 1919). Approved by the Federal Board for Vocational Education. Baton Rouge, 1919. 40 pp.*

The plan includes agricultural, trade and industrial, and home economics education, and teacher training.

MARYLAND.—*State Department of Education. Vocational education in Maryland, 1919. Baltimore, 1919. 63 pp.*

MASSACHUSETTS.—*Bureau of Statistics. Forty-seventh quarterly report on employment in Massachusetts, quarter ending September 30, 1919. Boston, 1919. 21 pp.*

According to returns received from 1,184 labor organizations in Massachusetts, representing an aggregate membership of 257,390, the number of members unemployed for all causes at the close of September, 1919, was 13,863, or 5.4 per cent of the total number. This percentage is slightly higher than the corresponding percentage (5.1) for the close of the preceding quarter, but is lower than the corresponding percentage for the close of September in each year of the past decade except 1912 and 1916. The

number of strikes reported as having occurred during the quarter was 188 as compared with 161 during the preceding quarter.

NEW YORK.—*Department of Health. The public health manual, containing the public health law, the sanitary code and the provisions in other general laws relating to public health. Albany, February 1, 1919. 658 pp.*

Includes the text of the labor laws relating to the reporting of industrial poisons, employment of minors, physical examination of children in factories, powers and duties of boards of health relative to tenement-made articles, lunch rooms, and the employment of women and children in basements.

— *Industrial Commission. Health hazards of the chemical industry. Albany, November, 1919. 69 pp. Illustrated. Special bulletin No. 96.*

This report is noted more fully on pages 165 to 168 of this issue of the REVIEW.

— *Reconstruction Commission. Report to Gov. Alfred E. Smith on retrenchment and reorganization in the State Government. Albany, October 10, 1919. 419 pp. Charts.*

This is the full report of the commission.

A digest of the summary of the report was published in the January, 1920, issue of the MONTHLY LABOR REVIEW, pages 266 to 269.

PANAMA CANAL.—*Washington Office. Manual of information concerning employments for the Panama Canal Service, revised November 15, 1919. Washington, 1919. 35 pp. Form 151.*

PENNSYLVANIA.—*Department of Mines. Report. 1917. Part II.—Bituminous. Harrisburg, 1919. 1470 pp. Chart.*

The output of the coal mines of the State in 1917 reached the unprecedented total of 271,519,710 net tons, of which 171,074,411 tons were bituminous and 100,445,299 anthracite. Coke production was 23,240,777 tons. There were 342,734 men employed in and about the mines. The number of fatalities among workers was 1,075, compared with 1,030 to a total of 246,797,774 tons produced in 1915 and 1,001 to a total production of 256,804,012 net tons in 1916.

SOUTH DAKOTA.—*State Inspector of Mines. Twenty-seventh, twenty-eighth, and twenty-ninth annual reports, 1916, 1917, 1918. Pierre, 1917-19. 32, 36, 28 pp.*

The reports for 1917 and 1918 show a decrease in the activity of the mining industry, owing to shortage of labor and increased cost of production, the inactivity being most marked in 1918, when materials and supplies necessary for the recovery of gold had increased in cost, in some instances, as much as 100 per cent. The report for that year states, however, that "conditions are returning to normal with respect to labor, and this coming year will see all plants operating at full capacity."

Fatal accidents reported are 6 in 1916, 7 in 1917, 1 in 1918; permanently and totally disabled, 1 each in 1916 and 1917; permanently and partially disabled, 3 in 1916, 11 in 1917, and 2 in 1918; seriously injured (more than 14 days lost time), 105 in 1916, 114 in 1917, and 102 in 1918; slightly injured (1 to 14 days lost time), 683 in 1916, 590 in 1917, and 429 in 1918.

VIRGINIA.—*State Board of Education. Vocational agriculture in the secondary schools of Virginia. Richmond, January, 1920. 71 pp.*

WASHINGTON.—*State Mine Inspector. Annual reports of coal mines for the years ending December 31, 1916, 1917, 1918. Seattle, 1917, 1918, 1919. 121, 53, 62 pp.*

The coal production for 1918 was 4,128,424 short tons, which was an increase of 125,665 tons over the previous year and the largest production the State has yet had. There were 5,847 persons employed in and about the coal mines of the State, of whom 4,172 worked inside and 1,675 outside the mines. This was an increase of 502 employees over 1917. There were 34 fatal accidents and 692 nonfatal accidents.

WEST VIRGINIA.—*Department of Mines. Annual report for the fiscal year ending June 30, 1917. Charleston, 1917. 376 pp.*

During the year 88,665 persons were employed at the mines and coke ovens, an increase of 8,607 over the previous year. The average annual earnings of pick miners



was \$1,137.81, an increase of \$254.33 over 1916, while the rate per ton of run-of-mine coal mined was 69 cents as against 52 cents in 1916. The report tabulates 394 fatal and 993 nonfatal accidents.

WISCONSIN.—*State Board of Vocational Education. Courses of study. Teacher training. Madison, 1919. 16 pp. Monograph No. 5.*

UNITED STATES.—*Department of Labor. National War Labor Board. Report of the secretary for the 12 months ending May 31, 1919. Washington, 1920. 149 pp.*

Practically the entire text of the report of the secretary was published in the MONTHLY LABOR REVIEW for August, 1919 (pp. 262-270). This volume, however, includes detailed reports of the heads of the various departments of the board, including the department of procedure, the department of files and information, the department of examination, and the department of administration of awards. Appendix 1 is a special report on public utility cases, many of which were noted in the REVIEW from time to time as the awards were made. These awards are classified in this report under the following heads: Right to organize; Collective bargaining; Representation of workers; Equal pay for equal work; Women as conductors; Hours of labor; and Individual contracts. In Appendix 2 is presented an analysis of all of the decisions of the board up to May 31, 1919, which it is believed will be very useful to all students of industrial conditions. In this analysis the decisions of the board are classified under the general heads: No strikes or lockouts during the war; Right to organize; Existing conditions; Women in industry; Hours of labor; Maximum production; Mobilization of labor; Custom of localities; and The living wage. The principles and rules of procedure of the board are set forth in full in Appendix 3. Appendix 4 gives an account of the organization and practice of the board as adopted and amended to December 10, 1918.

— *Woman in Industry Service. First annual report of the Director of the Woman in Industry Service, for the fiscal year ended June 30, 1919. Washington, 1919. 29 pp.*

This service was organized in July, 1918, a year and three months after the entrance of the United States into the war, and the appointment of its director and assistant director announced July 9, 1918.

Briefly stated the purpose of this service is—

1. To consider all general policies with respect to women in industry and to advise the Secretary of Labor as to the policies which should be pursued.
2. To keep informed of the work of the several divisions of the department in so far as they relate to women in industry and to advise with the divisions on all such work.
3. To secure information on all matters relating to women in industry and to collate such information into useful form.
4. To establish useful connections with all governmental departments and divisions on this subject and with voluntary agencies and societies.

— *Department of the Interior. Bureau of Mines. Miners' safety and health almanac for 1920. Published in cooperation with the United States Public Health Service. Washington, 1919. 51 pp. Illustrated. Miners' circular 26.*

The second of a series, the first of which, for the year 1919, was issued as Miners' circular 24. This almanac contains "information on different diseases that cause much sickness and death among miners and their families, and points out how such diseases can be kept from starting and spreading. Also, it describes some of the more common causes of accidents in mines and shows how the miner can lessen the risks of his work."

— *Employees' Compensation Commission. Regulations concerning duties of employees, official superiors, medical officers, and others under Federal Compensation Act of September 7, 1916. Revised October 15, 1919. Washington, 1919. 75 pp.*

— *Federal Board for Vocational Education. Rehabilitation Division. A year's work in vocational rehabilitation in the twelfth district comprising California, Arizona, and Nevada. San Francisco, Flood Bldg., 1919. 29 pp.*

— *Government Printing Office. Superintendent of Documents. Immigration, naturalization, citizenship, Chinese, Japanese, Negroes, enlistment of aliens. List of publications. Washington, 1919. 16 pp. Price list 67, 3d edition.*

UNITED STATES.—*Interstate Commerce Commission. Collisions, derailments, and other accidents resulting in injury to persons, equipment or roadbed arising from the operation of railways used in interstate commerce. October, November, and December, and year 1918. Washington, 1920. 64 pp. Accident bulletin No. 70.*

A brief statement of the accidents which occurred in the year 1918 is contained on pages 159 and 160 of this issue of the REVIEW.

— *Railroad Administration. Agreement between the Railroad Administration and the employees represented by the Railway Employees' Department of the American Federation of Labor, and its affiliated organizations of the mechanical section and divisions Nos. 1, 2, and 3 thereof. Washington, 1919. 77 pp.*

The affiliated divisions to which this agreement is applicable are the International Association of Machinists, International Brotherhood of Boilermakers, Iron Ship Builders and Helpers of America, International Brotherhood of Blacksmiths and Helpers, Amalgamated Sheet Metal Workers' International Alliance, International Brotherhood of Electrical Workers, and Brotherhood of Railway Carmen of America. The agreement, which is dated September 20, 1919, covers hours of service, overtime work, preferences in reduction of forces, grievances, apprentices, rates of pay, shop conditions, personal injuries, and assignment of work. Eight hours is made the basic work day, while the rates of pay are increased an average of 4 cents an hour, except for mechanics in the car department, who were receiving 58 cents an hour and who received an increase of 9 cents, the increases to be effective from May 1, 1919. Special rules are laid down for each of the affiliated divisions, the subjects covered including qualifications, classification of work, apprentices and helpers, running repair work, and differentials.

— *General order No. 27, with its supplements, addenda, amendments and interpretations to June 30, 1919. Wages of railroad employees. Washington, 1919. 212 pp.*

General order No. 27 was printed in full in the June, 1918, issue of the MONTHLY LABOR REVIEW, pages 1-21.

— *Safety section circular No. 7. Aims and purposes of the safety section. Address delivered by A. F. Duffy before the steam railroad section of the National Safety Congress, Cleveland, Ohio, October 2, 1919. Washington, 1919. 7 pp.*

— *Treasury Department. Public Health Service. Annual report of the surgeon general for the fiscal year 1919. Washington, 1919. 346 pp.*

Included in this report is an account of the organization of a division of industrial hygiene in cooperation with the Working Conditions Service of the Department of Labor, and a brief statement of certain investigations conducted by this division the results of which have, in several instances, been made public. One of these was the investigation of electro-chemical and abrasive plants at Niagara Falls, carried on in cooperation with the Woman in Industry Service of the Department of Labor, an account of which is given on pages 161 to 168 of this issue of the REVIEW. Another investigation was that conducted in conjunction with the Children's Bureau for the purpose of establishing standards of height and weight for Southern mill children. To determine the extent of the lead hazard in the pottery industry, an investigation was made of 116 potteries, chiefly in New Jersey, and physical examinations were made of over 1,700 men. The report also mentions investigations made in a number of plants at the request of the United States Employees' Compensation Commission that the service assume advisory and in some instances direct charge of the medical relief in plants whose employees were judged to come under the Federal compensation law.

— *War Department. Surgeon General's Office. Defects found in drafted men. Statistical information compiled from the draft records showing the physical condition of the men registered and examined in pursuance of the requirements of the selective service act. Prepared under the direction of the Surgeon General, by Albert G. Love. Washington, 1919. 359 pp. 66th Congress, 1st session.*

## Official—Foreign Countries.

ARGENTINA.—*Departamento Nacional del Trabajo. Trabajo a Domicilio. Industria de la Ropería Salarios Mínimos. Buenos Aires, 1919. 19 pp. (Ley Num. 10,505.)*

Report of the president of the commission on minimum wages in home work in the clothing industry concerning piece wages on various articles of clothing.

CANADA.—*Bureau of Statistics. The Canadian Year Book, 1918. Ottawa, 1919. 686 pp. Map.*

— *Parliament. House of Commons. Cost of living. Proceedings of the special committee appointed for the purpose of inquiring forthwith as to the prices charged for foodstuffs, clothing, fuel, and other necessities of life, and as to the rates of profit made thereon by dealers and others concerned in their production, distribution, and sale, etc. Comprising the evidence taken and papers submitted in connection therewith. Nos. 1 to 23. Ottawa, 1919. 1008 pp. Parliamentary session, 1919.*

The conclusions of this investigation were published in an article in the September, 1919, issue of the MONTHLY LABOR REVIEW, pages 113-118.

GREAT BRITAIN.—*Home Office. Mines and quarries. General report, with statistics, for 1918, by the chief inspector of mines. Part II.—Labor. London, 1919. Pp. 91-142. Cmd. 490. Price, 6d. net.*

The total number of persons ordinarily employed at mines and at the quarries under the Quarries Act in the United Kingdom and the Isle of Man during 1918 was 1,072,903 (1,029,688 at mines and 43,215 at quarries), or a net decrease of 12,568 persons as compared with the preceding year—a decrease of 12,152 at mines and 416 at quarries. Of those employed at mines, 807,086 worked underground, and 222,602 above ground. Of the latter 11,761 were females. There were 1,284 separate fatal accidents in and about mines and quarries, causing the loss of 1,487 lives, an increase of 36 fatalities as compared with the previous year. Of these accidents 1,220, causing the loss of 1,420 lives, happened at mines, and 64, causing the loss of 67 lives, happened at quarries; or, expressed in terms of the number of persons employed, the death rate from accidents per 1,000 persons at all mines was 1.379 for surface and underground workers, and 1.603 for underground workers alone for 1918 as compared with 1.339 for surface and underground workers and 1.500 for underground workers alone for 1917. The death rate per million of tons raised at mines under the coal mines act during 1918 was 5.86, as compared with the average of 5.08 for the decennial period 1908-17.

— *Local Government Board. Forty-eighth annual report, 1918-1919. Part I.—Public health; Local administration; Local taxation and valuation. Part II.—Housing and town planning. Part III.—Administration of the poor law; Old age pensions. Part IV.—Special work arising out of the war. London, 1919. 197 pp. Cmd. 413. Price, 1s. net.*

— *Ministry of Health. Housing. New methods of construction. London, 1919. 4 pp. Cmd. 426. Price, 1d. net.*

Statement of proposals submitted to the Ministry of Health for the provision of houses of new methods of construction which the ministry has approved.

— *Housing, Town Planning, etc., Act, 1919; regulations. October 6, 1919. London, 1919. 24 pp.*

— *Ministry of Labor. Joint Industrial Council. A review of progress and achievements, December, 1919. [London], 1919. 20 pp. Bulletin No. 2.*

Gives a list of 51 Whitley councils set up between January 11, 1918, and October 21, 1919, with a summary of progress, since July, 1919, showing what the various councils have achieved as regards wages, hours, and holidays; disputes and conciliation; employment of disabled men; welfare; safety; and research, organization, statistics, etc. Progress in the organization of district councils and works committees is also noted.



GREAT BRITAIN.—*Ministry of Labor. National Insurance (Unemployment) Bill, 1919. Memorandum on the financial clauses. London, 1919. 3 pp. Cmd. 440. Price, 1d. net.*

Explains financial readjustments necessary if benefit payable to workpeople insured under the national insurance (unemployment) acts, 1911-1918, is increased from 7s. to 11s. per week, as is proposed in the bill.

— — — *Report by the Government actuary. London, 1919. Cmd. 439. 3 pp. Price, 1d. net.*

States that "owing to the lack of suitable data at the time the original calculation was made, the risk to be undertaken was overvalued, and the benefit fixed at a substantially lower rate than the contribution would have borne." It is recommended that the benefit be increased from 7s. (par value of shilling, 24.3 cents) to 11s. a week.

— *Ministry of Reconstruction. Adult Education Committee. Final report. London, 1919. 409 pp. Cmd. 321. 5 appendixes.*

The final report of the Adult Education Committee is the fourth of a series of reports put out by this committee upon the subject of adult education. The first of these dealt with Industrial and Social Conditions in Relation to Adult Education; the second, with Education in the Army; while the third considered the question of Libraries and Museums.

From the nature of the material considered the final report may be divided into three parts. In the first part the past history of the movement for adult education is traced and its present status discussed. The second part deals with the demand for adult education and the intellectual standards achieved in the work which is being done. The third part is devoted to a discussion of the weaknesses and possibilities of adult education; the place of adult education in the work of universities; and the very apparent need of greater cooperation on the part of the universities in affording to workers opportunity for courses of study which will lift them above their daily routine and prepare them for a more intelligent participation in the duties of citizenship; the supply of teachers, with proposals for increasing it; methods of financing adult education classes; technical education in its relation to modern industry; and a generous number of conclusions and recommendations.

— *Oversea Settlement Committee. Report to the president of the committee of the delegates appointed to inquire as to openings in Canada for women from the United Kingdom. April-September, 1919. London, 1919. 35 pp. Cmd. 403. Price, 4d. net.*

This report is a result of a personal investigation by the committee in Canada over a period of four months. The purpose of the inquiry was to determine the opportunities of employment for women from Great Britain in industrial, commercial, and other kinds of employment and in land settlement and in positions as domestics. The social conditions the women would meet, as well as wages and housing conditions, form part of the study. The appendixes contain the list of authorities consulted during the study, suggestions as to the establishment of community houses for the benefit of girls coming over as servants, opportunities provided for special training in domestic service, and accounts of the experiences of individual women who have settled on farms.

ITALY.—*Ufficio Centrale di Statistica. Le fluttuazioni stagionali nella vita economica italiana, by Riccardo Bachi. 261 pp. Annali di Statistica, series V, vol. 9. Rome, 1919.*

A volume of the statistical annals published by the Italian Central Statistical Office, containing a study by Prof. Riccardo Bachi on the seasonal fluctuations in the economic life of Italy. The aspects of economic life covered by the study include internal and foreign commerce, prices, money in circulation, discount rates, the money market, credit movement, industrial activity, labor market, transportation, municipal administration, pawnshops, and State finances.

MEXICO.—*Secretaria de Industria, Comercio y Trabajo. Plan de estudios de la escuela superior de comercio y administracion. Mexico, 1919. 131 pp.*

Regulations, requirements, and courses of study adopted for the reorganization of the superior school of commerce and administration.

NETHERLANDS.—*Centraal Bureau voor de Statistiek. Beknopt overzicht van den omvang der vakbeweging op Januari 1917. The Hague, 1917. 34, xvii pp. Bijdragen, new series, No. 245.*

The following table, taken from the report, sets forth the growth of trade-union membership in the Netherlands, 1913 to 1917. The figures for 1918 and 1919 were taken from *Maandschrift van het Centraal Bureau voor de Statistiek*, August, 1919 (p. 959).

TRADE-UNION MEMBERSHIP IN THE NETHERLANDS, 1913-1919.

Name of organization.	1913	1914	1915	1916	1917	1918	1919
National Labor Secretariat.....	8,097	9,697	9,242	10,510	14,309	23,068	33,626
National Federation of Trade Unions..	61,447	84,261	87,598	99,511	128,918	159,449	191,138
Evangelical Federation of Trade Unions.....	7,944	11,023	12,327	15,013	20,506	28,008	46,338
Roman Catholic Federation of Trade Unions.....	21,096	29,048	35,257	40,338	54,855	69,139	91,814
Nonpartisan Federation of Trade Unions.....	2,844	3,864	4,677	5,046	5,635	7,794	10,539
Total.....	101,428	137,893	149,101	170,418	224,223	287,458	373,455

— — — *Overzicht betreffende de loonen en den arbeidsduur bij werken ten behoeve van het Rijk bij aanbesteding uitgevoerd in 1913. The Hague, 1917. xxix, 24 pp. Bijdragen, new series, No. 238.*

Presents a summary view of wages and hours of labor on public works (State and municipal) executed by contract in the Netherlands during 1913. Previous studies have covered the years 1894, 1899, 1902, 1903, 1905, and 1908.

— — — *Statistiek van de loonen en den arbeidsduur der volgens de Ongevallenwet 1901 verzekerde werklieden in de papier industrie, in 1911. The Hague, 1917. xv [2], 10 pp. Bijdragen, new series, No. 242.*

This report is a survey of the paper-making industry in the Netherlands and presents comprehensive data as to wages and hours of labor of persons employed in the industry as of 1911.

— — — *Werkstakingen en uitsluitingen in Nederland gedurende, 1915-1916. The Hague, 1917-18. 2 vols. Bijdragen, new series, Nos. 239, 250.*

The following table, contained in a French summary in the text, gives in brief form the official reported data respecting strikes and lockouts in the Netherlands since 1910:

Year:	Number of strikes.	Number of lockouts.	Number of persons affected.	
			Strikes.	Lockouts.
1910.....	<sup>1</sup> 133 (131)	13	4,507	8,731
1911.....	<sup>1</sup> 205 (197)	12	19,122	883
1912.....	<sup>1</sup> 265 (260)	18	19,620	2,052
1913.....	<sup>1</sup> 400 (383)	27	23,990	6,171
1914.....	<sup>1</sup> 250 (241)	21	13,953	1,706
1915.....	<sup>1</sup> 259 (244)	10	14,373	806
1916.....	<sup>1</sup> 356 (345)	21	17,146	<sup>2</sup> 981

<sup>1</sup> Number of strikes for which number of strikers was reported.

<sup>2</sup> Applies to only 20 lockouts, number affected not being reported in the case of one lockout.

NETHERLANDS.—*Departement van Arbeid. Arbeidsvoorwaarden van het personeel op handelskantoren. The Hague, 1919. 56 pp. Uitgaven, No. 24.*

A study by the department of labor of hours, wages, and working conditions of store, office, and petty shop employees, covering 3,035 shops in which 23,427 were employed. Classified wages, per month, of 10,956 workers in August, 1914, are reported, as follows:

NUMBER AND PER CENT RECEIVING CLASSIFIED AMOUNT OF WAGES PER MONTH,  
AUGUST, 1914, BY SEX.

[Par value of florin=40.2 cents.]

Classified monthly wage.	Male.		Female.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Less than 5 florins.....	31	0.34	5	0.26	36	0.33
5 to 9 florins.....	550	6.09	54	2.82	604	5.51
10 to 14 florins.....	782	8.65	133	6.93	915	8.35
15 to 19 florins.....	584	6.46	159	8.29	743	6.78
20 to 24 florins.....	518	5.73	252	13.14	770	7.03
25 to 29 florins.....	485	5.37	267	13.92	752	6.86
30 to 34 florins.....	352	3.89	146	7.61	498	4.55
35 to 39 florins.....	403	4.46	166	8.65	569	5.19
40 to 44 florins.....	370	4.09	162	8.45	532	4.86
45 to 49 florins.....	289	3.20	141	7.35	430	3.92
50 to 59 florins.....	513	5.67	206	10.74	719	6.56
60 to 69 florins.....	526	5.82	93	4.85	619	5.65
70 to 79 florins.....	559	6.18	56	2.92	615	5.61
80 to 89 florins.....	557	6.16	29	1.51	586	5.35
90 to 99 florins.....	316	3.50	15	.78	331	3.02
100 to 199 florins.....	1,698	18.79	34	1.77	1,732	15.81
200 florins and over.....	505	5.59			505	4.61
Total.....	9,038	100.0	1,918	100.0	10,956	100.0

SWEDEN.—*Socialstyrelsen. Levnadskostnaderna i Sverige 1913-14. Del III, Hushållsräkenskaper. Stockholm, 1919. 493 pp. Sveriges Officiella Statistik, Socialstatistik.*

Comprises part 3 of an extensive study of household budgets in Sweden in 1913-14. This volume contains a detailed statement of the sources of income and expenditures for various items of expenditure for each of the 908 families included in the investigation. These families were distributed throughout the 8 principal cities in the country, excluding Stockholm.

SWITZERLAND.—*Bureau Fédéral des Assurances. Rapport sur les entreprises privées en matière d'assurances en Suisse en 1917. Bern, 1919. 107\* 193 pp.*

This volume is the annual report of the Swiss insurance bureau for the year 1917.

### Unofficial.

ALLEN, FREDERICK J. *Advertising as a vocation. New York, The Macmillan Co., 1919. 178 pp.*

AMERICAN FEDERATION OF LABOR. *Arizona Branch. Proceedings of the eighth annual convention, held at Phoenix, Oct. 27-Nov. 1, 1919. Phoenix, 1919. 71 pp.*

— *Utah Branch. Proceedings of the fifteenth convention, held at Salt Lake City, September 9 to 12, 1919. Salt Lake City, 1919. 48 pp.*

AMERICAN WRITING PAPER CO. *Cost of living in Holyoke, Mass., July, 1919. An investigation made by John W. Scoville. Holyoke, 1919. 12 pp. 4 charts.*

Shows changes in the cost of the principal items of the family budget in Holyoke since 1913. The change in the cost of food was calculated from quotations of retail prices charged on January 1 of each year since 1913 furnished by local grocers, and



from advertised quotations in 1913 and 1919. In order "to get a composite food cost" the cost in 1913 and July, 1919, of specified amounts of each of 13 articles of food were calculated, and the results showed that the total cost had risen from \$54.97 in 1913 to \$102.88 in 1919, an increase of over 87 per cent. Figures for rents were based on those paid in 30 apartments in sections of the city where employees of the company live; it was found that rents had increased about 9 per cent. Fuel and light increased about 27 per cent. To obtain the increases in clothing and sundries the wholesale price index numbers of the United States Bureau of Labor Statistics were used; these items had increased 107 and 91 per cent, respectively.

Weighting the items according to their relative importance in the family budget, the company found that the increases since 1913 were as follows:

	Per cent.
Food.....	37.4
Rent.....	1.6
Fuel and light.....	1.4
Clothing.....	13.9
Sundries.....	18.2
All items.....	72.5

The company relates these figures to the changes in hourly wage rates paid to its employees. No figures are given as to wage rates but a chart is shown indicating changes in both wages and cost of living. The report states:

Since July, 1918, hourly wage rates have advanced more than the cost of living. The purchasing power in goods of an hour's labor was about 15 per cent higher in July, 1919, than in 1913, as shown by the curve on commodity wage rates. However, weekly earnings would deviate somewhat from the wage rate curve, on account of variations in the amount of employment.

**ASSOCIATION OF LIFE INSURANCE PRESIDENTS.** *Proceedings of the twelfth annual meeting, held in New York, December 5 and 6, 1918. New York, 1919. 162 pp.*

Papers of interest to labor were on Vocational retraining—a national conservation, by Dr. Charles A. Prosser; Group insurance as an influence in promoting stability in labor groups, by Eugenius H. Outerbridge; and Failure of German compulsory insurance—a war revelation, by Frederick L. Hoffman.

**BABSON, ROGER W.** *W. B. Wilson and the Department of Labor. New York, Brentano's, 1919. 276 pp.*

**BLOOMFIELD, DANIEL (COMPILER).** *Modern industrial movements. New York, The H. W. Wilson Co., 1919. 377 pp. The handbook series.*

This book contains a collection of articles which have appeared in periodicals and in reports and other publications on the following subjects: Cooperation; syndicalism, industrial unionism, and the I. W. W.; shop stewards; scientific management; guild socialism; management sharing; bolshevism; labor parties; and industrial reconstruction programs. A short bibliography on each subject is included.

**BOSTON PUBLIC LIBRARY.** *Industrial problems, chiefly American; selected references to books and magazines in the Public Library of the City of Boston. Boston, December, 1919. 18 pp.*

Contents: Collective bargaining and trade agreements; strikes and lockouts; boycotts and blacklists; injunctions in labor disputes; arbitration; open and closed shop; labor representation in industry.

**BUREAU OF INDUSTRIAL RESEARCH, NEW YORK.** *Selected list of references on trade and labor unions. New York, 289 Fourth Avenue, December, 1919. 12 mimeographed pages.*

**BUREAU OF MUNICIPAL RESEARCH OF PHILADELPHIA.** *Workingmen's standard of living in Philadelphia. A report, by William C. Beyer. New York, The Macmillan Co., 1919. 125 pp.*

BUREAU OF RAILWAY NEWS AND STATISTICS. *Railway statistics of the United States of America for the year ended December 31, 1918.* Chicago, 1919. 148 pp.

States that the average number of employees during 1918 was 1,897,741, as compared with 1,780,235 in 1917, and 1,703,577 in 1916. The total wages and salaries paid in 1918 was \$2,686,734,498, as compared with \$1,781,027,002 in 1917 and \$1,511,728,926 in 1916. The average compensation per employee in 1918 was \$1,416; in 1917, \$1,001; and in 1916, \$887. It is stated that nearly 60 of the 77 per cent, or over \$1,175,529,000 increase in the cost of labor between 1916 and 1918, went to the individual employee, and that only 17 per cent was due to the increase in the number employed.

Accident statistics show that for the first nine months of 1918, 7,056 persons were killed and 134,730 injured in railway accidents. In 1917 the number killed was 10,087 and the number injured 194,805. In 1916 the figures were 10,001 and 196,722, respectively. Of the persons killed in 1918, 394 were passengers on trains, 2,127 employees on duty, and 4,535 other persons, of whom 126 were employees not on duty, 2,442 were trespassers, 1,506 nontrespassers, and 461 persons killed in nontrain accidents.

BUREAU OF VOCATIONAL INFORMATION. *Vocations for business and professional women. Published in cooperation with the National Board of the Young Women's Christian Associations.* New York, 2 West 43rd Street, May, 1919. 48 pp. Bulletin No. 1.

Discusses "those occupations in which women have made a definite and permanent place for themselves and in which younger women, the workers of the future, may expect to find fields for service."

BURTON, THEODORE E., AND SELDEN, G. C. *A century of prices. An examination of economic and financial conditions as reflected in prices, money rates, etc., during the past 100 years.* New York, The Magazine of Wall Street, 1919. 118 pp. Graphs.

The text and graphs of this book first appeared in the Magazine of Wall Street. The aim is to "explain the great controlling principles of business and finance in the straightforward fashion of one business man talking to another." Chapters of special interest deal with Prices and an index of economic and investment conditions, Great economic forces since 1790, and What American commodity prices show.

ČAPEK, THOMAS. *The Čechs (Bohemians) in America. A study of their national, cultural, political, social, economic, and religious life.* Boston, Houghton Mifflin Co., 1920. 294 pp. Illustrated.

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE. *Division of Economics and History. Preliminary economic studies of the war No. 14. British labor conditions and legislation during the war, by M. B. Hammond.* New York, Oxford University Press (American branch), 1919. 335 pp.

The social conditions in England prior to the war, particularly with relation to housing, drink, sickness, pauperism, and old age, and the effect which social legislation had upon problems of the war, are reviewed, as well as the condition of English industry and labor at the outbreak of the war. The author treats also of the effects of the munitions of war acts, the methods taken to secure an adequate supply of labor, changes in wages, cost of living, and hours of labor, measures taken for the relief of unemployment, and the problem of labor unrest. The final chapter is devoted to plans for industrial reconstruction, especially the Whitley councils, and the demands of the Labor Party for nationalization of public utilities.

CHELLEW, HENRY. *Human and industrial efficiency.* London, University of London Press, 1919. 170 pp.

An argument for the reconstruction of the relationships between employees and employed along the lines of scientific management. The author believes that housing and working conditions must be satisfactory, that every effort must be made to eliminate excessive fatigue, and that the psychology of the workers must be studied; also that the workers must be animated by "the right spirit," and that the greatest factor in efficiency, and therefore in success, is that the individual shall feel an interest in his work.

CLINIC FOR FUNCTIONAL REEDUCATION OF DISABLED SOLDIERS, SAILORS AND CIVILIANS. *First annual report, 1918-1919. New York, 5 Livingston Place, 1919. 52 pp.*

DOUGLAS, DOROTHY W. *American minimum wage laws at work. Reprinted from the American Economic Review. December, 1919. Pp. 701-738.*

A digest of this paper was published in the January, 1920, issue of the MONTHLY LABOR REVIEW, page 180.

ELMER, MANUEL C. *Armourdale, a city within a city. The report of a social survey of Armourdale, a community of 12,000 people living in the industrial district of Kansas City, Kansas. Topeka, June 15, 1919. 91 pp. Illustrated. Bulletin of the University of Kansas. Vol. XX, No. 12.*

GILBRETH, FRANK B. AND LILLIAN M. *Fatigue study. The elimination of humanity's greatest unnecessary waste a first step in motion study. Second edition, revised. New York, The Macmillan Co., 1919. 175 pp. Illustrated.*

HOLLANDER, JACOB H. *American citizenship and economic welfare. The Weil lectures, 1919, delivered at the University of North Carolina. Baltimore, The Johns Hopkins Press, 1919. 122 pp.*

Three lectures on The weal of the Nation, The laborer's hire, and The sinews of peace. In discussing wages the author holds that a progressive standard of life should form the basis upon which the final arbitral award is reached in the arbitration of all industrial disputes involving wage demands. He believes that "In the matter of collective bargaining, in the arbitral determination of labor disputes and in the validation of the standard of life as a wage principle—the industrial experience of the war years have resulted in notable progress," and agrees that the device of the local shop committee has been planted "so well and so broadly throughout industry—as hardly to seem eradicable."

HOLTZ, MAX L. *Review of the accomplishments of the Rochester clothing industry for the year 1919. A report presented at the twenty-ninth annual meeting of the Clothiers' Exchange, December 20, 1919, by the president. [Rochester, 1919.] 24 pp.*

The achievements of the Rochester market for the year 1919 are said to have been (1) the establishment of a definite labor policy, with the machinery for its administration, based on a system of collective bargaining that now has been adopted practically by the industry as a whole, and which has brought about a better understanding between employer and employee than exists in any other industry in the country; (2) the establishment of a definite market policy toward the retailer, based on the square deal; and (3) the development of the spirit of cooperation.

LABOR PARTY (BRITISH). *The capital levy (How the Labor Party would settle the war debt), by F. W. Pethick Lawrence. London, 33 Eccleston Square, 1919. 8pp. Price, 2d.; post free, 2½d.*

— *International economic policy, by L. S. Woolf. London, 33 Eccleston Square, 1919. 10 pp. Price, 2d.; post free, 2½d.*

— *Memoranda: Continued education under the new education act; The juvenile worker at the end of the war; Nursery schools. London, 33 Eccleston Square, 1919. 24 pp.*

These memoranda, prepared by the advisory committee on education, emphasize the points to be watched in the carrying out of the new education act; measures to be taken for coping with the problem of juvenile employment and unemployment; and the necessity for the early establishment of nursery schools, provided for in the act.

— *Tariffs and the worker, by Brougham Villiers. London, 33 Eccleston Square, 1919. 8 pp. Price, 1d.; post free, 1½d.*

LABOR RESEARCH DEPARTMENT. *Annual report, 1918-19. London, National Labor Press, Ltd. [1919]. 24 pp.*

LADD, MARY B. *List of references on the right to strike. [Washington, 1919.] 16 pp. Reprinted from Special Libraries, December, 1919.*



LANDSORGANISATIONENS I SVERGE. *Berättelse över Landsorganisationens verksamhet år 1917.* Stockholm, 1919. 179, 180 pp.

Report of the National Federation of Swedish trade-unions.

LLOYD, JOHN WILLIAM. *Cooperative and other organized methods of marketing California horticultural products.* Urbana, Ill., 1919. 142 pp. *University of Illinois studies in the social sciences*, Vol. VIII, No. 1, March, 1919.

MANES, ALFRED. *Versicherungs-Staatsbetrieb im Ausland.* Berlin, 1919. 128 pp.

In this volume has been collected the experiences of various State, provincial, and municipal Governments which either have established Government monopolies of insurance or have underwritten insurance in competition with private insurance companies. The States most extensively covered in the volume are Uruguay, which in 1912 established a general insurance monopoly, and Italy, which in the same year enacted a law making the underwriting of life insurance a state monopoly.

In summing up the results achieved by foreign Governments in carrying on an insurance business the author arrives at the following conclusions:

1. State insurance institutes operated in competition with private insurance companies as a rule have achieved indifferent results and only in exceptional instances have proved to be more advantageous to the community than private companies.

2. Monopolistic state insurance institutes established on the basis of voluntary insurance show even less favorable results from an economic point of view than state institutes operated in competition with private companies. This is perhaps due to the absence of competition.

3. In compulsory insurance countries the experiences of monopolistic state insurance institutes, at least with respect to fire insurance, were in part favorable, while the experiences in all other branches of insurance vary greatly, but were largely unfavorable.

NATIONAL INDUSTRIAL CONFERENCE BOARD. *The cost of living among wage earners, Lawrence, Mass., November, 1919.* Boston, 1919. 21 pp.

This pamphlet is reviewed in this issue of the MONTHLY LABOR REVIEW, pages 71 and 72.

READE, W. H. V. *The revolt of labor against civilization.* New York. Longmans, Green and Co., 1919. 80 pp.

SÖSTRÖM, CHRISTOPHER. *Fackföreningsrörelsen och Socialdemokratien. Andra upplagan.* Stockholm, 1918. 30 pp.

Discussion of the relationship of the trade-union movement and the political labor movement (socialism).

SOCIAAL-DEMOCRATISCHE ARBEIDERSPARTIJ IN NEDERLAND. *Arbeidersjaarboekje*, 1919. Amsterdam [1919]. 190 pp.

Yearbook of the Dutch Labor Party for 1919.

SQUIRES, BENJAMIN M. *The Marine Workers' Affiliation of the Port of New York.* [New York, 1919.] pp. 840-874. Reprinted from *The Journal of Political Economy*, Vol. xxvii, No. 10, December, 1919.

Articles by Mr. Squires covering the facts contained in this article appeared in the MONTHLY LABOR REVIEW, August, 1918, pp. 45-62; September, 1918, pp. 1-26; February, 1919, pp. 12-27; April, 1919, pp. 246-249; August, 1919, pp. 173-185.

USSING, CARL. *De Kollektive arbejdsaftalers fremtid.* Copenhagen, 1919. 16 pp. *Dansk Forening for Socialpolitik*, 7. hefte.

This lecture delivered by the President of the Permanent Arbitration Court of Denmark appears also in the December, 1919, issue of *Social Forsorg* issued jointly by the staffs of the social insurance, factory inspection, and employment service of Denmark. After pointing out what he considers to be chronic defects in the present relations of capital and labor, Judge Ussing concludes that the collective agreement

is here to stay as a means of adjusting industrial relations, although the industrial conflict as such will continue. He recommends broadening the membership of the arbitration tribunal so as to include more than a single judge to represent the public or society at large.

WARD, HARRY F. *The New Social Order—Principles and programs.* New York, The Macmillan Co., 1919. 384 pp.

The first section of this book is devoted to a discussion of the need for a new social order; the second half is taken up with the programs for the new order.

WORKER'S EDUCATIONAL ASSOCIATION. *Sixteenth annual report and statement of accounts, July 1, 1919.* London, 16 Harpur Street, 1919. 60 pp.

This general report of the central council for 1918-19 covers the growth of the association, classes and lectures, summer schools, publications, a statement of accounts, district reports, overseas work, the constitution of the association, and a roster of the tutorial classes in 1918-19.

## SERIES OF BULLETINS PUBLISHED BY THE BUREAU OF LABOR STATISTICS.

[The publication of the annual and special reports and of the bimonthly bulletin was discontinued in July, 1912, and since that time a bulletin has been published at irregular intervals. Each number contains matter devoted to one of a series of general subjects. These bulletins are numbered consecutively, beginning with No. 101, and up to No. 236; they also carry consecutive numbers under each series. Beginning with No. 237 the serial numbering has been discontinued. A list of the series is given below. Under each is grouped all the bulletins which contain material relating to the subject matter of that series. A list of the reports and bulletins of the Bureau issued prior to July 1, 1912, will be furnished on application. The bulletins marked thus \* are out of print.]

### Wholesale Prices.

- \* Bul. 114. Wholesale prices, 1890 to 1912.
- Bul. 149. Wholesale prices, 1890 to 1913.
- \* Bul. 173. Index numbers of wholesale prices in the United States and foreign countries.
- Bul. 181. Wholesale prices, 1890 to 1914.
- Bul. 200. Wholesale prices, 1890 to 1915.
- Bul. 226. Wholesale prices, 1890 to 1916.
- Bul. 269. Wholesale prices, 1890 to 1919. [In press.]

### Retail Prices and Cost of Living.

- \* Bul. 105. Retail prices, 1890 to 1911: Part I.  
Retail prices, 1890 to 1911: Part II—General tables.
- \* Bul. 106. Retail prices, 1890 to June, 1912: Part I.  
Retail prices, 1890 to June, 1912: Part II—General tables.
- Bul. 108. Retail prices, 1890 to August, 1912.
- Bul. 110. Retail prices, 1890 to October, 1912.
- Bul. 113. Retail prices, 1890 to December, 1912.
- Bul. 115. Retail prices, 1890 to February, 1913.
- \* Bul. 121. Sugar prices, from refiner to consumer.
- Bul. 125. Retail prices, 1890 to April, 1913.
- Bul. 130. Wheat and flour prices, from farmer to consumer.
- Bul. 132. Retail prices, 1890 to June, 1913.
- Bul. 136. Retail prices, 1890 to August, 1913.
- \* Bul. 138. Retail prices, 1890 to October, 1913.
- Bul. 140. Retail prices, 1890 to December, 1913.
- Bul. 156. Retail prices, 1907 to December, 1914.
- Bul. 164. Butter prices, from producer to consumer.
- Bul. 170. Foreign food prices as affected by the war.
- \* Bul. 184. Retail prices, 1907 to June, 1915.
- Bul. 197. Retail prices, 1907 to December, 1915.
- Bul. 228. Retail prices, 1907 to December, 1916.
- Bul. 266. A study of family expenditures in the District of Columbia. [In press.]
- Bul. 270. Retail prices, 1913 to 1919. [In press.]

### Wages and Hours of Labor.

- Bul. 116. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia.
- Bul. 118. Ten-hour maximum working-day for women and young persons.
- Bul. 119. Working hours of women in the pea canneries of Wisconsin.
- \* Bul. 128. Wages and hours of labor in the cotton, woolen, and silk industries, 1890 to 1912.
- \* Bul. 129. Wages and hours of labor in the lumber, millwork, and furniture industries, 1890 to 1912.
- \* Bul. 131. Union scale of wages and hours of labor, 1907 to 1912.
- \* Bul. 134. Wages and hours of labor in the boot and shoe and hosiery and knit goods industries, 1890 to 1912.
- \* Bul. 135. Wages and hours of labor in the cigar and clothing industries, 1911 and 1912.
- Bul. 137. Wages and hours of labor in the building and repairing of steam railroad cars, 1890 to 1912.
- Bul. 143. Union scale of wages and hours of labor, May 15, 1913.
- Bul. 146. Wages and regularity of employment and standardization of piece rates in the dress and waist industry of New York City.



#### **Wages and Hours of Labor—Concluded.**

- Bul. 147. Wages and regularity of employment in the cloak, suit, and skirt industry.
- Bul. 150. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1913.
- Bul. 151. Wages and hours of labor in the iron and steel industry in the United States, 1907 to 1912.
- Bul. 153. Wages and hours of labor in the lumber, millwork, and furniture industries, 1907 to 1913.
- Bul. 154. Wages and hours of labor in the boot and shoe and hosiery and underwear industries, 1907 to 1913.
- Bul. 160. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories.
- Bul. 161. Wages and hours of labor in the clothing and cigar industries, 1911 to 1913.
- Bul. 163. Wages and hours of labor in the building and repairing of steam railroad cars, 1907 to 1913.
- Bul. 168. Wages and hours of labor in the iron and steel industry, 1907 to 1913.
- Bul. 171. Union scale of wages and hours of labor, May 1, 1914.
- Bul. 177. Wages and hours of labor in the hosiery and underwear industry, 1907 to 1914.
- Bul. 178. Wages and hours of labor in the boot and shoe industry, 1907 to 1914.
- Bul. 187. Wages and hours of labor in the men's clothing industry, 1911 to 1914.
- Bul. 190. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1914.
- Bul. 194. Union scale of wages and hours of labor, May 1, 1915.
- Bul. 204. Street railway employment in the United States.
- Bul. 214. Union scale of wages and hours of labor, May 15, 1916.
- Bul. 218. Wages and hours of labor in the iron and steel industry, 1907 to 1915.
- Bul. 221. Hours, fatigue, and health in British munition factories.
- Bul. 225. Wages and hours of labor in the lumber, millwork, and furniture industries, 1915.
- Bul. 232. Wages and hours of labor in the boot and shoe industry, 1907 to 1916.
- Bul. 238. Wages and hours of labor in woolen and worsted goods manufacturing, 1916.
- Bul. 239. Wages and hours of labor in cotton goods manufacturing and finishing, 1916.
- Bul. 245. Union scale of wages and hours of labor, May 15, 1917.
- Bul. 252. Wages and hours of labor in the slaughtering and meat-packing industry.
- Bul. 259. Union scale of wages and hours of labor, May 15, 1918.
- Bul. 260. Wages and hours of labor in the boot and shoe industry, 1907 to 1918.
- Bul. 261. Wages and hours of labor in woolen and worsted goods manufacturing, 1918.
- Bul. 262. Wages and hours of labor in cotton goods manufacturing and finishing, 1918.
- Bul. 265. Industrial survey in selected industries in the United States, 1919. Preliminary report. [In press.]
- Bul. 274. Union scale of wages and hours of labor, May 15, 1919. [In press.]

#### **Employment and Unemployment.**

- Bul. 109. Statistics of unemployment and the work of employment offices.
- Bul. 116. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia.
- Bul. 172. Unemployment in New York City, N. Y.
- Bul. 182. Unemployment among women in department and other retail stores of Boston, Mass.
- Bul. 183. Regularity of employment in the women's ready-to-wear garment industries.
- Bul. 192. Proceedings of the American Association of Public Employment Offices.
- Bul. 195. Unemployment in the United States.
- Bul. 196. Proceedings of the Employment Managers' Conference held at Minneapolis, January, 1916.
- Bul. 202. Proceedings of the conference of the Employment Managers' Association of Boston, Mass., held May 10, 1916.
- Bul. 206. The British system of labor exchanges.
- Bul. 220. Proceedings of the Fourth Annual Meeting of the American Association of Public Employment Offices, Buffalo, N. Y., July 20 and 21, 1916.
- Bul. 223. Employment of women and juveniles in Great Britain during the war.
- Bul. 227. Proceedings of the Employment Managers' Conference, Philadelphia, Pa., April 2 and 3, 1917.
- Bul. 235. Employment system of the Lake Carriers' Association.
- Bul. 241. Public employment offices in the United States.
- Bul. 247. Proceedings of the Employment Managers' Conference, Rochester, N. Y., May 9-11, 1918.

### **Women in Industry.**

- Bul. 116. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia.
- \* Bul. 117. Prohibition of night work of young persons.
- Bul. 118. Ten-hour maximum working-day for women and young persons.
- Bul. 119. Working hours of women in the pea canneries of Wisconsin.
- \* Bul. 122. Employment of women in power laundries in Milwaukee.
- Bul. 160. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories.
- \* Bul. 167. Minimum-wage legislation in the United States and foreign countries.
- Bul. 175. Summary of the report on condition of woman and child wage earners in the United States.
- Bul. 176. Effect of minimum-wage determination in Oregon.
- Bul. 180. The boot and shoe industry in Massachusetts as a vocation for women.
- Bul. 182. Unemployment among women in department and other retail stores of Boston, Mass.
- Bul. 193. Dressmaking as a trade for women in Massachusetts.
- Bul. 215. Industrial experience of trade-school girls in Massachusetts.
- Bul. 217. Effect of workmen's compensation laws in diminishing the necessity of industrial employment of women and children.
- Bul. 223. Employment of women and juveniles in Great Britain during the war.
- Bul. 253. Women in the lead industry.

### **Workmen's Insurance and Compensation (including laws relating thereto).**

- Bul. 101. Care of tuberculous wage earners in Germany.
- Bul. 102. British National Insurance Act, 1911.
- Bul. 103. Sickness and accident insurance law of Switzerland.
- Bul. 107. Law relating to insurance of salaried employees in Germany.
- \* Bul. 126. Workmen's compensation laws of the United States and foreign countries.
- Bul. 155. Compensation for accidents to employees of the United States.
- \* Bul. 185. Compensation legislation of 1914 and 1915.
- Bul. 203. Workmen's compensation laws of the United States and foreign countries.
- Bul. 210. Proceedings of the Third Annual Meeting of the International Association of Industrial Accident Boards and Commissions.
- Bul. 212. Proceedings of the conference on social insurance called by the International Association of Industrial Accident Boards and Commissions.
- Bul. 217. Effect of workmen's compensation laws in diminishing the necessity of industrial employment of women and children.
- Bul. 240. Comparison of workmen's compensation laws of the United States.
- Bul. 243. Workmen's compensation legislation in the United States and foreign countries.
- Bul. 248. Proceedings of the Fourth Annual Meeting of the International Association of Industrial Accident Boards and Commissions.
- Bul. 264. Proceedings of the Fifth Annual Meeting of the International Association of Industrial Accident Boards and Commissions.
- Bul. 273. Proceedings of the Sixth Annual Meeting of the International Association of Industrial Accident Boards and Commissions. [In press.]
- Bul. 275. Comparison of workmen's compensation laws of the United States and Canada up to January 1, 1920. [In press.]

### **Industrial Accidents and Hygiene.**

- Bul. 104. Lead poisoning in potteries, tile works, and porcelain enameled sanitary ware factories.
- Bul. 120. Hygiene of the painters' trade.
- \* Bul. 127. Dangers to workers from dusts and fumes, and methods of protection.
- Bul. 141. Lead poisoning in the smelting and refining of lead.
- \* Bul. 157. Industrial accident statistics.
- Bul. 165. Lead poisoning in the manufacture of storage batteries.
- \* Bul. 179. Industrial poisons used in the rubber industry.
- Bul. 188. Report of British departmental committee on the danger in the use of lead in the painting of buildings.
- \* Bul. 201. Report of committee on statistics and compensation insurance cost of the International Association of Industrial Accident Boards and Commissions. [Limited edition.]
- Bul. 205. Anthrax as an occupational disease.
- Bul. 207. Causes of death by occupation.
- \* Bul. 209. Hygiene of the printing trades.
- Bul. 216. Accidents and accident prevention in machine building.
- \* Bul. 219. Industrial poisons used or produced in the manufacture of explosives.
- Bul. 221. Hours, fatigue, and health in British munition factories.
- Bul. 230. Industrial efficiency and fatigue in British munition factories.
- Bul. 231. Mortality from respiratory diseases in dusty trades.

**Industrial Accidents and Hygiene—Concluded.**

- Bul. 234. Safety movement in the iron and steel industry, 1907 to 1917.
- Bul. 236. Effect of the air hammer on the hands of stonecutters.
- Bul. 251. Preventable death in the cotton manufacturing industry.
- Bul. 253. Women in the lead industry.
- Bul. 256. Accidents and accident prevention in machine building. (Revised.) [In press.]
- Bul. 267. Anthrax as an occupational disease. (Revised.) [In press.]

**Conciliation and Arbitration (including strikes and lockouts).**

- Bul. 124. Conciliation and arbitration in the building trades of Greater New York.
- Bul. 133. Report of the industrial council of the British Board of Trade on its inquiry into industrial agreements.
- Bul. 139. Michigan copper district strike.
- Bul. 144. Industrial court of the cloak, suit, and skirt industry of New York City.
- Bul. 145. Conciliation, arbitration, and sanitation in the dress and waist industry of New York City.
- Bul. 191. Collective bargaining in the anthracite coal industry.
- Bul. 198. Collective agreements in the men's clothing industry.
- Bul. 233. Operation of the Industrial Disputes Investigation Act of Canada.

**Labor Laws of the United States (including decisions of courts relating to labor).**

- Bul. 111. Labor legislation of 1912.
- Bul. 112. Decisions of courts and opinions affecting labor, 1912.
- Bul. 148. Labor laws of the United States, with decisions of courts relating thereto.
- Bul. 152. Decisions of courts and opinions affecting labor, 1913.
- Bul. 166. Labor legislation of 1914.
- Bul. 169. Decisions of courts affecting labor, 1914.
- Bul. 186. Labor legislation of 1915.
- Bul. 189. Decisions of courts affecting labor, 1915.
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